

# **PUBLIC PARTICIPATION**

**PUBLIC NOTICE**  
**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ)**  
**ETHYL CORPORATION- BATON ROUGE PLANT**  
**FINAL HAZARDOUS WASTE POST-CLOSURE RENEWAL PERMIT**

The LDEQ, Office of Environmental Services, has made the decision to issue the final hazardous waste post-closure renewal permit for Ethyl Corporation (Ethyl), Gulf States Road, Baton Rouge, LA 70805 for the Post-Closure Hazardous Waste Units. **The facility is located on Gulf States Road, Baton Rouge, East Baton Rouge Parish.**

Under this hazardous waste post-closure renewal permit, Ethyl Corporation (Ethyl) will continue post-closure care of the following units: Landfill Area D-1, Landfill Area D-2 (which includes waste from Surface Impoundments T-2, T-3, T-4, T-6, T-7, and T-8), Landfill Area D-3, Surface Impoundment T-1, Surface Impoundment T-5, Container Storage Area S-1 and S-2.

This final hazardous waste post-closure permit governs the above closed units and the post-closure care of these units. Ethyl no longer disposes of hazardous waste at its Baton Rouge Plant but must continue post-closure care, groundwater monitoring, and the implementing of site-wide corrective action.

The post-closure units listed above no longer receive hazardous waste. The units were all closed by January of 1998, requiring a post-closure care. This final post-closure renewal permit addresses post-closure care that includes the maintenance of final covers and the groundwater monitoring program.

The final permitting action and related documents are available for review and copying (all documents copied will be subject to a \$0.25 charge per copied page) at the LDEQ, Public Records Center, Room 127, 602 North 5th Street, Baton Rouge, LA. Viewing hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday (except holidays). **The available information can also be accessed electronically on the Electronic Document Management System (EDMS) on the DEQ public website at ww**

Additional copies of this action may be reviewed at the East Baton Rouge Parish Library, Delmont Gardens Branch, 3351 Lorraine Street, Baton Rouge LA.

In accordance with Louisiana Revised Statutes (La R.S.) 30:2024, the Permittee may file with the secretary a request for a hearing no later than thirty (30) days after the notice of the action is served. Under La. R.S. 30:2050.21, any person aggrieved by a final permit action may appeal to the Nineteenth Judicial District Court within 30 days after the notice of the action has been given.

Previous notices have been published in the Advocate on August 22, 2005 and on June 27, 2008.

Inquiries or requests for additional information regarding this permit action, should be directed to Karla Vidrine, LDEQ, Waste Permits Division, P.O. Box 4313, Baton Rouge, LA 70821-4313, phone (225) 219-3061.

Persons wishing to be included on the LDEQ permit public notice mailing list or for other public participation related questions should contact the Public Participation Group in writing at LDEQ, P.O. Box 4313, Baton Rouge, LA 70821-4313, by email [PublicParticipation@ldeq.la.gov](mailto:PublicParticipation@ldeq.la.gov) or contact the LDEQ Customer Service Center at (225) 219-LDEQ (219-5337).

Permit public notices including electronic access to the issued permit and associated information can be viewed at the LDEQ permits public notice webpage at [www.deq.louisiana.gov/apps/pubNotice/default.asp](http://www.deq.louisiana.gov/apps/pubNotice/default.asp) and general information related to the public participation in permitting activities can be viewed at

Alternatively, individuals may elect to receive the permit public notices via email by subscribing to the LDEQ permits public notice List Server at [www.doa.louisiana.gov/oes/listservpage/ldeq\\_pn\\_listserv.htm](http://www.doa.louisiana.gov/oes/listservpage/ldeq_pn_listserv.htm)

All correspondence should specify AI Number 3085, Permit Number LAD079460895-PC-RN-1, and Activity Number PER20050001.

Date of Publication: September 2, 2008

BOBBY JINDAL  
GOVERNOR



HAROLD LEGGETT, PH.D.  
SECRETARY

State of Louisiana  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
ENVIRONMENTAL SERVICES

August 27, 2008

Phone (225) 389-5100

Mr. Melvin "Kip" Holden, Mayor-President  
City of Baton Rouge-EBRP  
222 St. Louis Street, 3<sup>rd</sup> Floor  
Baton Rouge, LA 70802

Re: Final Hazardous Waste Post Closure  
Ethyl Corporation-Baton Rouge Plant  
East Baton Rouge Parish, Louisiana  
AI 3085 / LAD 079460895 / PER20050001

Dear Mayor-President Holden:

The Louisiana Department of Environmental Quality (LDEQ) is enclosing for your reference, a copy of the final hazardous waste post-closure permit renewal and the legal notice schedule for publication in The Advocate on September 2, 2008.

Should you have any questions regarding the facility, additional permit information may be obtained from Ms. Karla Vidrine, LDEQ, Permits Division, P.O. Box 4313, Baton Rouge, LA 70821-4313, telephone (225) 219-3061.

Sincerely,

A handwritten signature in cursive script that reads "Barbara Mason".

Barbara Mason  
Environmental Project Specialist  
Public Participation Group

/bm  
Enclosures

BOBBY JINDAL  
GOVERNOR



HAROLD LEGGETT, PH.D.  
SECRETARY

State of Louisiana  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
ENVIRONMENTAL SERVICES

August 27, 2008

Telephone: (225) 354-7080

Ms. Charlotte Pringle, Branch Manager  
East Baton Rouge Parish Library – Delmont Gardens Branch  
3351 Lorraine Street  
Baton Rouge, LA 70805

Re: Final Hazardous Waste Post Closure  
Ethyl Corporation-Baton Rouge Plant  
East Baton Rouge Parish, Louisiana  
AI 3085 / LAD 079460895 / PER20050001

Dear Ms. Pringle:

We request that the enclosed copy of the final hazardous waste post closure permit renewal and public notice for the referenced facility be made available for public review upon receipt. It is imperative that these documents are available for review at all times; therefore, it cannot be checked out at any time by anyone.

The Louisiana Department of Environmental Quality, Office of Environmental Services, Permits Division, will provide written notice to you requesting that the information be removed.

Please complete the attached verification by library form and mail to my attention at LDEQ Environmental Assistance Division, Post Office Box 4313, Baton Rouge, Louisiana 70821-4313, or fax it to (225) 219-3309.

We appreciate your assistance in our efforts to serve the public. If you have any questions, please call me at (225) 219-3280.

Sincerely,

A handwritten signature in cursive script that reads "Barbara Mason".

Barbara Mason  
Environmental Project Specialist  
Public Participation Group

/bm  
Enclosure

BOBBY JINDAL  
GOVERNOR



HAROLD LEGGETT, Ph.D.  
SECRETARY

State of Louisiana  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
ENVIRONMENTAL SERVICES

August 27, 2008

Telephone: (214) 665-6669

Mr. Kishor Fruitwala, Ph.D., P.E.  
U. S. EPA, Region VI  
Chief, RCRA Facility Assessment (6PD-A)  
1445 Ross Avenue  
Dallas, Texas 75202

Re: Final Hazardous Waste Post Closure  
Ethyl Corporation-Baton Rouge Plant  
East Baton Rouge Parish, Louisiana  
AI 3085 / LAD 079460895 / PER20050001

Dear Mr. Fruitwala:

The Louisiana Department of Environmental Quality (LDEQ) is enclosing for your reference, a copy of the final hazardous waste post-closure permit renewal and the legal notice schedule for publication in The Advocate on September 2, 2008.

Should you have any questions regarding the facility, additional permit information may be obtained from Ms. Karla Vidrine, LDEQ, Permits Division, P.O. Box 4313, Baton Rouge, LA 70821-4313, telephone (225) 219-3061.

Sincerely,

A handwritten signature in cursive script that reads "Barbara Mason".

Barbara Mason  
Environmental Project Specialist  
Public Participation Group

/bm  
Enclosures

**SIGNATURE  
PAGE**

## FINAL PERMIT

### LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

### HAZARDOUS WASTE POST-CLOSURE RENEWAL PERMIT

**PERMITTEE:**

**PERMIT NUMBER:** LAD079460895-PC-RN-1  
Agency Interest #3085/Activity # PER20050001

**FACILITY LOCATION:** GULF STATES ROAD  
BATON ROUGE, LOUISIANA, 70805

This permit is issued by the Louisiana Department of Environmental Quality (LDEQ) under the authority of the Louisiana Hazardous Waste Control Law R.S. 30:2171 et seq., and the regulations adopted thereunder and under the authority of the 1984 Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA) to Ethyl Corporation Baton Rouge Plant (hereafter called the Permittee), for the post-closure care of units located in Baton Rouge, Louisiana, at latitude 30° 29' 37" and longitude 91° 10' 43."

For the purposes of this permit, the "Administrative Authority" shall be the Secretary of the Louisiana Department of Environmental Quality, or his/her designee.

The permittee must comply with all terms and conditions of this permit. This permit consists of the conditions contained herein and the applicable regulations contained in the Louisiana Administrative Code, Title 33, Part V, Subpart 1, (LAC 33:V.Subpart 1). Applicable regulations are those that are in effect on the effective date of issuance of this permit.

This permit is based on the assumption that the information provided to LDEQ by the Permittee is accurate. Further, this permit is based in part on the provisions of Sections 206, 212, and 224 of the HSWA of 1984, which modify Section 3004 and 3005 of RCRA. In particular, Section 206 requires corrective action for all releases of hazardous waste or constituents from any solid waste management unit at a treatment, storage or disposal facility seeking a permit, regardless of the time at which waste was placed in such unit.

Section 212 provides authority to review and modify the permit at any time. Any inaccuracies found in the submitted information may be grounds for the termination, modification, revocation, and reissuance of this permit (see LAC 33:V.323) and potential enforcement action. The Permittee must inform the LDEQ of any deviation from or changes in the information in the application that would affect the Permittee's ability to comply with the applicable regulations or permit conditions.




This permit shall be effective as of October 2, 2008, and shall remain in effect until October 2, 2018, unless revoked, reissued, modified or terminated in accordance with LAC 33:V.323 and 705 of the Louisiana Hazardous Waste Regulations. The Administrative Authority may issue any permit for a duration that is less than the maximum term of ten (10) years and the term shall not be extended beyond the maximum duration by modification in accordance with LAC 33:V.315.

Post-closure requirements of LAC 33:V. Chapter 35, Subchapter B must continue for at least thirty (30) years after the date of closure for those units listed in Condition IV of this permit. Expiration of this permit does not relieve the permittee of the responsibility to reapply for a permit for the remainder of the thirty (30) year post-closure care period.

Provisions of this permit may be appealed in writing pursuant to La. R.S. 30:2024(A) within thirty (30) days from receipt of the permit. Only those provisions specifically appealed will be suspended by a request for hearing, unless the Secretary elects to suspend other provisions as well. A request for hearing must be sent to the following:

Louisiana Department of Environmental Quality  
Office of the Secretary  
Attention: Hearings Clerk, Legal Services Division  
Post Office Box 4302  
Baton Rouge, Louisiana 70821-4302

  
\_\_\_\_\_  
Cheryl Sonnier Nolan, Assistant Secretary  
Louisiana Department of Environmental Quality

27 Aug 2008  
Date

# **PART A**

United States Environmental Protection Agency  
HAZARDOUS WASTE PERMIT INFORMATION FORM

1. Facility Permit Contact (See instructions on page 23)	First Name: John	MI: W.	Last Name: Street
	Phone Number: (804) 788-6048		Phone Number Extension:

2. Facility Permit Contact Mailing Address (See instructions on page 23)	Street or P.O. Box: P.O. Box 2218		
	City, Town, or Village: Richmond		
	State: Virginia		
	Country: USA	Zip Code: 23218	

3. Operator Mailing Address and Telephone Number (See instructions on page 23)	Street or P.O. Box: P.O. Box 341		
	City, Town, or Village: Baton Rouge		
	State: Louisiana		
	Country: USA	Zip Code: 70821	Phone Number: (225) 359-2856

4. Legal Owner Mailing Address and Telephone Number (See instructions on page 23)	Street or P.O. Box: P.O. Box 2218		
	City, Town, or Village: Richmond		
	State: Virginia		
	Country: USA	Zip Code: 23218	Phone Number: (804) 788-6048

5. Facility Existence Date (See instructions on page 24)	Facility Existence Date (mm/dd/yyyy): 04/01/1937
----------------------------------------------------------	-----------------------------------------------------

6. Other Environmental Permits (See instructions on page 24)													
A. Permit Type (Enter code)			B. Permit Number										C. Description
N	L	A			0	0	0	4	0	9	0		Discharges to Surface Waters
R	L	A	D		0	7	9	4	6	0	8	9	Federal Hazardous Wastes
U	2	5	1	3	9								Application Number
U	2	5	1	4	0								Application Number
U	2	5	1	4	1								Application Number

7. Nature of Business (Provide a brief description; see instructions on page 24)	<p>Former manufacturer of lead anti knock compounds, 1,2-dichloroethane, sodium, and chlorine.</p> <p>Former reclaimer of metallic lead. Manufacturing operations shut down October 1, 1985.</p> <p>Groundwater cleanup is continuing.</p>
----------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

## 8. Process Codes and Design Capacities (See instructions on page 24) - Enter information in the Sections on Form Page 3.

A. **PROCESS CODE** - Enter the code from the list of process codes in the table below that best describes each process to be used at the facility. Fifteen lines are provided for entering codes. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" processes (i.e., D99, S99, T04 and X99), enter the process information in Item 9 (including a description).

B. **PROCESS DESIGN CAPACITY** - For each code entered in Section A, enter the capacity of the process.

1. **AMOUNT** - Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.

2. **UNIT OF MEASURE** - For each amount entered in Section B(1), enter the code in Section B(2) from the list of unit of measure codes below that describes the unit of measure used. Select only from the units of measure in this list.

C. **PROCESS TOTAL NUMBER OF UNITS** - Enter the total number of units for each corresponding process code.

PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
	<u>Disposal:</u>			<u>Treatment (continued):</u>	
D79	Underground Injection Well Disposal	Gallons; Liters; Gallons Per Day; or Liters Per Day	T81	Cement Kiln	For T81-T93:
			T82	Lime Kiln	
D80	Landfill	Acres-feet; Hectare-meters; Acres; Cubic Meters; Hectares; Cubic Yards	T83	Aggregate Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Short Tons Per Hour; or Million Btu Per Hour
D81	Land Treatment	Acres or Hectares	T84	Phosphate Kiln	
D82	Ocean Disposal	Gallons Per Day or Liters Per Day	T85	Coke Oven	
D83	Surface Impoundment Disposal	Gallons; Liters; Cubic Meters; or Cubic Yards	T86	Blast Furnace	
D99	Other Disposal	Any Unit of Measure in Code Table Below	T87	Smelting, Melting, or Refining Furnace	
	<u>Storage:</u>		T88	Titanium Dioxide Chloride Oxidation Reactor	
S01	Container	Gallons; Liters; Cubic Meters; or Cubic Yards	T89	Methane Reforming Furnace	
S02	Tank Storage	Gallons; Liters; Cubic Meters; or Cubic Yards	T90	Pulping Liquor Recovery Furnace	
S03	Waste Pile	Cubic Yards or Cubic Meters	T91	Combustion Device Used In The Recovery Of Sulfur Values From Spent Sulfuric Acid	
S04	Surface Impoundment Storage	Gallons; Liters; Cubic Meters; or Cubic Yards	T92	Halogen Acid Furnaces	
S05	Drip Pad	Gallons; Liters; Acres; Cubic Meters; Hectares; or Cubic Yards	T93	Other Industrial Furnaces Listed In 40 CFR §160.10	
S06	Containment Building Storage	Cubic Yards or Cubic Meters	T94	Containment Building - Treatment	Cubic Yards; Cubic Meters; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; Btu Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million Btu Per Hour
S99	Other Storage	Any Unit of Measure in Code Table Below		<u>Miscellaneous (Subpart X):</u>	
	<u>Treatment:</u>		X01	Open Burning/Open Detonation	Any Unit of Measure in Code Table Below
T01	Tank Treatment	Gallons Per Day; Liters Per Day	X02	Mechanical Processing	Short Tons Per Hour; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Day; Pounds Per Hour; Kilograms Per Hour; Gallons Per Hour; Liters Per Hour; or Gallons Per Day
T02	Surface Impoundment Treatment	Gallons Per Day; Liters Per Day	X03	Thermal Unit	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Short Tons Per Hour; or Million Btu Per Hour
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; Btu Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million Btu Per Hour	X04	Geologic Repository	Cubic Yards; Cubic Meters; Acres-feet; Hectare-meter; Gallons; or Liters
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; Gallons Per Day; Liters Per Hour; or Million Btu Per Hour	X99	Other Subpart X	Any Unit of Measure Listed Below
T80	Boiler	Gallons; Liters; Gallons Per Hour; Liters Per Hour; Btu Per Hour; or Million Btu Per Hour			

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
Gallons	G	Short Tons Per Hour	D	Cubic Yards	Y
Gallons Per Hour	E	Metric Tons Per Hour	W	Cubic Meters	C
Gallons Per Day	U	Short Tons Per Day	N	Acres	B
Liters	L	Metric Tons Per Day	S	Acres-feet	A
Liters Per Hour	H	Pounds Per Hour	J	Hectares	Q
Liters Per Day	V	Kilograms Per Hour	R	Hectare-meter	F
		Million Btu Per Hour	X	Btu Per Hour	I

## B. Process Codes and Design Capacities (Continued)

EXAMPLE FOR COMPLETING Item 8 (shown inline number X-1 below): A facility has a storage tank, which can hold 533.788 gallons.

A.		B. PROCESS DESIGN CAPACITY		C.		For Official Use Only
Line Number	Process Code (From list above)	(1) Amount (Specify)	(2) Unit of Measure (Enter code)	Process Total Number of Units		
X 1	S 0 2	5 3 3 . 7 8 8	G	0 0 1		
1	D 8 0	0	A			
2						
3						
4						
5						
6						
7						
8						
9						
1 0						
1 1						
1 2						
1 3						
1 4						
1 5						

NOTE: If you need to list more than 15 process codes, attach an additional sheet(s) with the information in the same format as above. Number the lines sequentially, taking into account any lines that will be used for "other" processes (i.e., D99, S99, T04 and X99) in Item 9.

## 9. Other Processes (See instructions on page 25 and follow instructions from Item 8 for D99, S99, T04 and X99 process codes)

A.		B. PROCESS DESIGN CAPACITY		C.		D. Description of Process
Line Number (Enter #s in sequence with Item 8)	Process Code (From list above)	(1) Amount (Specify)	(2) Unit of Measure (Enter code)	Process Total Number of Units		
X 2	T 0 4	1 0 0 . 0 0 0	U	0 0 1		In-situ Vitirification

--	--	--	--	--	--	--

--	--	--	--	--	--	--

--	--	--	--	--	--	--

--	--	--	--	--	--	--

--	--	--	--	--	--	--

## 10. Description of Hazardous Wastes (See instructions on page 25) - Enter information in the Sections on Form Page 5.

- A. EPA HAZARDOUS WASTE NUMBER - Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR Part 261, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.
- B. ESTIMATED ANNUAL QUANTITY - For each listed waste entered in Section A, estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in Section A, estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.
- C. UNIT OF MEASURE - For each quantity entered in Section B, enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure, taking into account the appropriate density or specific gravity of the waste.

## D. PROCESSES

## 1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in Section A, select the code(s) from the list of process codes contained in Items 8A and 9A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the listed hazardous wastes.

For non-listed hazardous waste: For each characteristic or toxic contaminant entered in Section A, select the code(s) from the list of process codes contained in Items 8A and 9A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:

- Enter the first two as described above.
- Enter "000" in the extreme right box of Item 10.D(1).
- Use additional sheet, enter line number from previous sheet, and enter additional code(s) in Item 10.E.

## 2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in Item 10.D(2) or in Item 10.E(2).

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER - Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

- Select one of the EPA Hazardous Waste Numbers and enter it in Section A. On the same line complete Sections B, C and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
- In Section A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In Section D(2) on that line enter "included with above" and make no other entries on that line.
- Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING Item 10 (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operations. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number	A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)		D. PROCESSES									
								(1) PROCESS CODES (Enter code)						(2) PROCESS DESCRIPTION- (If a code is not entered in D(1))			
X	1	K	0	5	4	900	P	T	0	3	D	8	0				
X	2	D	0	0	2	400	P	T	0	3	D	8	0				
X	3	D	0	0	1	100	P	T	0	3	D	8	0				
X	4	D	0	0	2												Included With Above

## 10. Description of Hazardous Wastes (Continued. Use the Additional Sheet(s) as necessary; number pages as 5 a, etc.)

Line Number	A. EPA Hazardous Waste No. (Enter code)		B. Estimated Annual Quantity of Waste		C. Unit of Measure (Enter code)	D. PROCESSES	
						(1) PROCESS CODES (Enter code)	(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
1	D	0 0 2	0		T		
2	D	0 0 3	0		T		
3	D	0 0 8	0		T		
4	P	1 1 0	0		T		
5	K	0 6 9	0		T		
6	D	0 0 8	0		T		
7	0	0 0 5	0		T		
8	F	0 0 3	0		T		
9	F	0 0 5	0		T		
1	0	D 0 0 1	0		T		
1	1	K 0 1 9	0		T		
1	2	D 0 0 8	0		T		
1	3	U 0 7 7	0		T		
1	4	K 0 5 2	0		T		
1	5	D 0 0 3	0		T		
1	6						
1	7						
1	8						
1	9						
1	0						
2	1						
2	2						
2	3						
2	4						
2	5						
2	6						
2	7						
2	8						
2	9						
3	0						
3	1						
3	2						
3	3						
3	4						
3	5						
3	6						
3	7						
3	8						
3	9						

**11. Map (See instructions on pages 25 and 26)**

*Attach to this application a topographic map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in this map area. See instructions for precise requirements.*

**12. Facility Drawing (See instructions on page 26)**

*All existing facilities must include a scale drawing of the facility (see instructions for more detail).*

**13. Photographs (See instructions on page 26)**

*All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).*

**14. Comments (See instructions on page 26)****6. Other Environmental Permits**

U 25142 Number of Application

U 25143 Number of Application

U 25144 Number of Application

11. See Figure G.1 in Appendix N, Section 6.

12. See Figure G.4 in Appendix N, Section 6.

13. See Figure 3 in Appendix N, Section 6.

Waste codes listed herein are for wastes stored in closed landfills D-1, D-2, and D-3.



SECTION 3

STATE OF LOUISIANA

DEPARTMENT OF ENVIRONMENTAL QUALITY NOTIFICATION OF HAZARDOUS WASTE  
ACTIVITY RCRA SUBTITLE C SITE IDENTIFICATION FORM

MAIL  
COMPLETED FORM  
TO:United States Environmental Protection Agency  
and

STATE OF LOUISIANA

DEPARTMENT OF ENVIRONMENTAL QUALITY  
NOTIFICATION OF HAZARDOUS WASTE ACTIVITY  
RCRA SUBTITLE C SITE IDENTIFICATION FORM

## 1. Reason for Submittal

## A. Reason for Submittal:

- ☐ To provide initial notification (to obtain an EPA ID Number for hazardous waste, universal waste, or used oil activities).
- ☒ To provide subsequent notification (to update site identification information).
- or
- ☐ As a component of a First RCRA Hazardous Waste Part A Permit Application.
- ☐ As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment # \_\_\_\_\_).
- or
- ☐ As a component of the Hazardous Waste Report.

CHOOSE ONLY ONE  
REASON  
PER SUBMITTAL

B. Number of Employees: 2

## 2. Site EPA ID Number

EPA ID Number: LAD 079460895

## 3. Site Name

Legal Name: Ethyl Corporation Baton Rouge Plant

4. Site Location  
(Physical address,  
NOT PO Box or Route)

Street Address: Gulf States Road

City, Town, or Village: Baton Rouge

State: Louisiana

County/Parish Name: East Baton Rouge

Zip Code: 70805

## 5. Site Land Type

Site Land Type: ☒ Private ☐ County/Parish ☐ District ☐ Federal ☐ Indian ☐ Municipal ☐ State ☐ Other6. North American  
Industry Classification  
System (NAICS) Code(s)

A. 924110

B.

C.

D.

## 7. Site Mailing Address

Street or P. O. Box: P. O. Box 341

City, Town, or Village: Baton Rouge

State: Louisiana

County/Parish Name: East Baton Rouge

Zip Code: 70821

## 8. Site Contact Person

First Name: John

MI: W.

Last Name: Street

Phone Number: (804) 788-6048

Phone Number Extension:

9. Legal Owner and  
Operator of the Site (see  
instructions)

A. Name of Site's Legal Owner: Ethyl Corporation

Date Became Owner (mm/dd/yyyy): 04/01/1937

Owner Type: ☒ Private ☐ County/Parish ☐ District ☐ Federal ☐ Indian ☐ Municipal ☐ State ☐ OtherB. Name of Site's Operator: Ethyl Corporation Baton Rouge  
Plant

Date Became Operator (mm/dd/yyyy): 04/01/1937

Operator Type: ☒ Private ☐ County/Parish ☐ District ☐ Federal ☐ Indian ☐ Municipal ☐ State ☐ Other

Same as Page 1 of EPA Form 8700-12

Page 1 of \_\_

Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes)

## A. Hazardous Waste Activities

## 1. Generator of Hazardous Waste

(Select one of the following categories)

☐ a. LOG: Greater than 1,000 kg/mo (2,200 lbs.)  
Non-acute hazardous waste; or☒ b. SOG: 100 to 1,000 kg/mo (220 - 2,200 lbs.)  
Non-acute hazardous waste; or☐ c. CESOG: Less than 100 kg/mo  
Non-acute hazardous waste☐ d. NON-GENERATOR

In addition, indicate other generator activities (check all that apply)

☐ e. United States Importer of Hazardous Waste☐ f. Mixed Waste (hazardous and radioactive) Generator

For Items 2 through 6, check all that apply:

☐ 2. Transporter of Hazardous Waste☐ Transfer Facility Status

(Transporter status must be indicated above)

☒ 3. Treater, Storer, or Disposer of HW (at your site)  
Note: A hazardous waste permit is required for this activity.☒ Permitted ☐ Interim Status ☐ Proposed☐ 4. Recycler of Hazardous Waste (at your site)  
Note: A hazardous waste permit may be required for this activity.

## 5. Exempt Boiler and/or Industrial Furnace

☐ a. Small Quantity On-site Burner Exemption☐ b. Smelting, Melting, Refining Furnace Exemption☒ 6. Underground Injection Control

## B. Universal Waste Activities (Indicate Activity Type)

☐ 1. Large Quantity Handler of Universal Waste [refer to your State regulations to determine what is regulated]. Indicate types of universal waste generated and/or accumulated at your site. (check all boxes that apply):

	Generated	Accumulated
a. Batteries	<input type="checkbox"/>	<input type="checkbox"/>
b. Pesticides	<input type="checkbox"/>	<input type="checkbox"/>
c. Thermostats	<input type="checkbox"/>	<input type="checkbox"/>
d. Lamps	<input type="checkbox"/>	<input type="checkbox"/>
e. Antifreeze	<input type="checkbox"/>	<input type="checkbox"/>

☐ 2. Destination Facility for Universal Waste

Note: A hazardous waste permit may be required for this activity.

## C. Used Oil Activities (Indicate Activity Type)

☐ 1. Used Oil Transporter☐ a. Transporter☐ b. Transfer Facility☐ 2. Used Oil Processor and/or Re-refiner☐ a. Processor☐ b. Re-refiner☐ 3. Off-Specification Used Oil Burner☐ 4. Used Oil Fuel Marketer☐ a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner☐ b. Marketer Who First Claims the Used Oil Meets the Specifications☐ 5. Used Oil Fuel Burner

(Indicate Combustion Device(s))

☐ Utility Boiler ☐ Industrial Boiler ☐ Industrial Furnace

## 11. Description of Hazardous Wastes

A. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g., D001, D003, F007, U112). Use an additional page if more spaces are needed.

D001	D002	D003	D005	D008	F003	F005
K019	K052	K069	P110	U077		

B. Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes. Please list the waste codes of the State-regulated hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed for waste codes.

## 12. Comments

## g. Site Contact Person Mailing Address (John W. Street)

Post Office Box 2218

Richmond, Virginia 23218

Waste codes listed herein (Section 11.A.) are for wastes stored in closed landfills D-1, D-2, and D-3.

13. Certification. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature of owner, operator, or an authorized representative

Name and Official Title (type or print)

Date Signed (mm-dd-yyyy)

*John W. Street*

JOHN W. STREET, VICE PRESIDENT HSE

07/25/2015

# **TABLE OF CONTENTS**

## TABLE OF CONTENTS

I. PERMIT PREAMBLE .....	1
II. GENERAL PERMIT CONDITIONS .....	5
II.A. DURATION OF PERMIT .....	5
II.B. EFFECT OF PERMIT .....	5
II.C. PERMIT ACTIONS .....	5
II.D. SEVERABILITY .....	6
II.E. DUTIES AND REQUIREMENTS .....	6
III. GENERAL POST-CLOSURE CONDITIONS .....	17
III.A. DESIGN AND OPERATION OF THE POST-CLOSURE UNIT .....	17
III.B. REQUIRED NOTICES .....	17
III.C. GENERAL WASTE ANALYSIS .....	17
III.D. SECURITY .....	18
III.E. GENERAL INSPECTION REQUIREMENTS .....	18
III.F. PERSONNEL TRAINING .....	18
III.G. GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE .....	18
III.H. LOCATION STANDARDS .....	19
III.I. PRECIPITATION RUN-ON AND RUN-OFF .....	19
III.J. HURRICANE EVENTS .....	19
III.K. PREPAREDNESS AND PREVENTION .....	19
III.L. CONTINGENCY PLAN .....	20
III.M. MANIFEST SYSTEM .....	20
III.N. RECORD KEEPING AND REPORTING .....	20
III.O. POST-CLOSURE .....	21
III.P. COST ESTIMATE FOR CARE OF THE POST-CLOSURE UNIT .....	22
III.Q. FINANCIAL ASSURANCE FOR THE POST-CLOSURE UNIT .....	23
III.R. LIABILITY REQUIREMENTS .....	23
III.S. INCAPACITY OF THE PERMITTEE .....	23
III.T. POST-CLOSURE NOTICES .....	23
IV. PERMITTED CLOSED UNITS .....	23
V. PERMIT CONDITIONS APPLICABLE TO PERMITTED CLOSED UNITS .....	24
V.A. POST-CLOSURE CARE PERIOD .....	24
V.B. POST-CLOSURE MAINTENANCE .....	25
V.C. POST-CLOSURE RESTRICTIONS .....	26
V.D. POST-CLOSURE USE OF PROPERTY .....	26
VI. GROUNDWATER PROTECTION .....	27
VI.A. APPLICABILITY .....	27
VI.B. REQUIRED PROGRAMS .....	27
VI.C. ALTERNATIVE MONITORING REQUIREMENTS .....	27

## TABLE OF CONTENTS

VII. GENERAL CONDITIONS PURSUANT TO THE HAZARDOUS AND SOLID WASTE AMENDMENTS.....	29
VII.A. STANDARD CONDITIONS .....	29
VII.B. EMISSION STANDARDS - PROCESS VENTS, EQUIPMENT LEAKS, TANKS, SURFACE IMPOUNDMENTS, AND CONTAINERS (AA-BB AIR REGULATIONS) .....	33
VII.C. SPECIFIC CONDITION - CLOSURE .....	33
VIII. SPECIAL CONDITIONS PURSUANT TO HAZARDOUS AND SOLID WASTE AMENDMENTS—CORRECTIVE ACTION STRATEGY .....	34
VIII.A. ALTERNATE CORRECTIVE ACTION.....	34
VIII.B. PROJECT DEVELOPMENT AND SCOPING MEETING .....	39
VIII.C. REPORTING REQUIREMENTS.....	40
VIII.D. SPECIFIC CONDITION – CONCEPTUAL SITE MODEL (CSM) .....	41
VIII.E. INTERIM MEASURES .....	46
VIII.F. CAS (CORRECTIVE ACTION STRATEGY) INVESTIGATION WORKPLAN.....	48
VIII.G. IMPLEMENTATION OF SITE INVESTIGATION ACTIVITIES UNDER CAS.....	50
VIII.H. RECAP REPORT .....	50
VIII.I. REMEDIAL ALTERNATIVES STUDY .....	51
VIII.J. RISK MANAGEMENT PLAN.....	52
VIII.K. DETERMINATION OF NO FURTHER ACTION.....	54
VIII.L. NOTIFICATION REQUIREMENTS FOR AND ASSESSMENT OF NEWLY-IDENTIFIED SWMUs AND POTENTIAL AOCs.....	56
VIII.M. NOTIFICATION REQUIREMENTS FOR NEWLY-DISCOVERED RELEASES AT A SWMU OR AOC .....	58
VIII.N. PUBLIC PARTICIPATION REQUIREMENTS .....	58

# **BODY OF PERMIT**



**DRAFT**  
**HAZARDOUS WASTE POST-CLOSURE RENEWAL PERMIT**

**ETHYL CORPORATION - BATON ROUGE PLANT**

**EPA ID# LAD079460895**

**Agency Interest# 3085**

**East Baton Rouge Parish**

**Baton Rouge, Louisiana**

**PER20050001**

**Permit Number LAD079460895-PC-RN-1**

**I. PERMIT PREAMBLE**

This permit is issued to Ethyl Corporation Baton Rouge Plant (Ethyl), hereinafter referred to as the Permittee, by the Louisiana Department of Environmental Quality (LDEQ) under authority of the Louisiana Hazardous Waste Control Law, R.S. 30:2171 et seq., and the regulations adopted thereunder.

This permit is based on information submitted in the permit application, and all subsequent amendments, and on the applicant's certification that such information is accurate and that all facilities were or will be maintained and operated as specified in the application.

This permit is conditioned upon full compliance with all applicable provisions of the Louisiana Hazardous Waste Control Law, R.S. 30:2171 et. seq., and the regulations adopted thereunder.

## GLOSSARY OF TERMS

For the purpose of this permit, terms used herein shall have the same meaning as those in LAC 33:V.Subpart 1 unless the context of use in this permit clearly indicates otherwise. Where terms are not otherwise defined, the meaning otherwise associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

**"Administrative Authority"** means the Secretary of the Louisiana Department of Environmental Quality or his/her designee (including appropriate assistant secretary).

**"Application"** refers to the RCRA Part B Permit Application and subsequent amendments submitted by the Permittee for obtaining a permit.

**"Area of Concern" (AOC)** means any discernable unit or area which, in the opinion of the Administrative Authority, may have received solid or hazardous waste or waste containing hazardous constituents at any time. The Administrative Authority may require investigation of the unit to determine if it is a Solid Waste Management Unit (SWMU). If shown to be a SWMU by the investigation, the AOC must be reported by the Permittee as a newly-identified SWMU.

**"Area of Investigation" (AOI)** is a zone contiguous to and including impacted media defined vertically and horizontally by the presence of one or more constituents in concentrations exceeding the limiting SS, MO-1 RS, or MO-2 RS (depending on the option being implemented).

**"Beneficial Resource"** describes natural resources that are useful to human and ecological receptors. The state may establish statutes or regulations that identify certain environmental components, such as specific ground water or surface water sources, as a "Special Beneficial Resource," or "Designated Beneficial Resource." The beneficial resources then may be entitled to greater protection from contamination.

**"Constituents of Concern" (COC)** means the COPC's that pose a significant risk.

**"Constituents of Potential Concern" (COPC)** means chemicals from hazardous waste and hazardous waste constituents that are potentially site related and have data of quality for use in the Screen or a site-specific risk assessment. The facility should compile a list of COPC's for each release site based on existing sampling data, waste analysis reports, etc.

**"Conceptual Site Model" (CSM)** is part of the Data Quality Objective (DQO) process that presents a three-dimensional picture of site conditions at a discrete point in time that conveys what is known about the facility, releases, release mechanisms, contaminant fate and transport, exposure pathways, potential receptors, and risks. The information for the CSM is documented into six profiles. The CSM evolves as data gaps in the profiles become more complete, and will be refined based upon results of site characterization data. The final CSM is documented in the Risk Management Plan (RMP).

**"CWA"** means Clean Water Act.

**"Corrective Action"** is an activity conducted to protect human health and the environment.

**"Dense Nonaqueous Phase Liquid (DNAPL)"** a dense liquid not dissolved in water, commonly referred to as "free product."

**"Department"** means the Louisiana Department of Environmental Quality (LDEQ).

**"EPA"** means the United States Environmental Protection Agency.

**"Facility"** means, for the purpose of conducting corrective action under LAC 33:V.3322, all the contiguous property under the control of the Permittee.

**"HSWA"** means the 1984 Hazardous and Solid Waste Amendments to RCRA.

**"Hazardous Constituent"** means any constituent identified in LAC 33:V.Chapter 31.Table 1, or any constituent identified in LAC 33:V.3325.Table 4.

**"LDEQ"** means the Louisiana Department of Environmental Quality.

**"Light Nonaqueous Phase Liquid (LNAPL)"** a light liquid not dissolved in water, commonly referred to as "free product."

**"Newly-discovered Release"** any release(s) of hazardous waste, including hazardous constituents, in which there is a statistically significant increase over the background data for the media of concern, during the course of groundwater monitoring, field investigation, environmental auditing, or by other means.

**"Operating Record"** means written or electronic records of all maintenance, monitoring, inspection, calibration, or performance testing—or other data as may be required—to demonstrate compliance with this permit, document noncompliance with this permit, or document actions taken to remedy noncompliance with this permit. A minimum list of documents that must be included in the operating record are identified at LAC 33:V.1529.B.

**"Permittee"** means Ethyl Corporation Baton Rouge Plant (Ethyl).

**"RCRA Permit"** means the full permit, with RCRA and HSWA portions.

**"RFA"** means RCRA Facility Assessment.

**"RFI"** means RCRA Facility Investigation.

**"Release"** means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping or disposing of hazardous wastes (including hazardous

constituents) into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing hazardous wastes or hazardous constituents).

**"Solid Waste Management Unit" (SWMU)** means any discernable unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

**"Stabilization"** is an action taken for the purpose of controlling or abating threats to human health or the environment from releases or preventing or minimizing the further spread of contaminants while long-term remedies are pursued.

If, subsequent to the issuance of this permit, regulations are promulgated which redefine any of the above terms, the Administrative Authority may, at its discretion, apply the new definition to this permit.

All regulating citations are defined as being the regulations in effect on the date of issuance of this permit. New and/or amended regulations are not included as permit requirements until permit modification procedures as specified in Condition II.C of the permit and LAC 33:V.321 are completed.

## **II. GENERAL PERMIT CONDITIONS**

### **II.A. DURATION OF PERMIT**

This permit is effective as of the date indicated on the accompanying signature page and shall remain in effect for a maximum period of ten (10) years from the effective date, unless suspended, modified, revoked and reissued or terminated for just cause.

### **II.B. EFFECT OF PERMIT**

This permit authorizes the Permittee to conduct post-closure care activities associated with the Landfill Area D-1, Landfill Area D-2 (which includes waste from Surface Impoundments T-2, T-3, T-4, T-6, T-7, and T-8) Landfill Area D-3, Surface Impoundment T-1, Surface Impoundment T-5, and Container Storage Areas S-1 and S-2 in accordance with the conditions of this permit, LAC 33:V.2521.B, and LAC 33:V.2911.B. The Permittee is prohibited from any storage, treatment or disposal of hazardous waste not authorized by statute, regulation or this permit. Compliance with this permit, LAC 33:V.Subpart 1 and HSWA, constitutes compliance for purposes of enforcement, with Subtitle C of RCRA and Chapter 9 of the Louisiana Environmental Quality Act (Act). However, compliance with the terms of this permit does not constitute a defense to any order issued or any action brought under Section 3013 or Section 7003 of RCRA, or under Section 106 (a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) {42 U.S.C. 9606 (a)}.

In accordance with LAC 33:V.307.B and C, issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local law or regulations.

### **II.C. PERMIT ACTIONS**

Any inaccuracies found in the permit application may be cause for revocation or modification of this permit. The Permittee must inform the Administrative Authority of any deviation from, changes or inaccuracies in the information in the permit application.

The Administrative Authority may also suspend, modify, revoke and reissue, or terminate for cause when necessary to be protective of human health or the environment as specified in 40 CFR 270.41, 270.42, 270.43 or LAC 33:V.309.F, 311.A or 323. The Administrative Authority may modify the permit when the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued. The filing of a request for permit modification, revocation and reissuance, or termination or the notification of planned changes or anticipated noncompliance on the part of Permittee does not stay the applicability or enforceability of any permit condition.

## **II.D. SEVERABILITY**

The conditions of this permit are severable and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

## **II.E. DUTIES AND REQUIREMENTS**

### **II.E.1. Duty to Comply**

The Permittee shall comply with all conditions of this permit, except to the extent and for the duration such noncompliance may be authorized by an emergency permit. Any permit noncompliance, other than noncompliance authorized by an emergency permit (LAC 33:V.701), constitutes a violation of the LAC 33:V.Subpart 1 and the Environmental Quality Act and is grounds for enforcement action which may include permit termination, permit revocation and reissuance, permit modification, or denial of permit renewal application.

### **II.E.2. Duty to Reapply**

If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must reapply for the permit as required by the LAC 33:V.303.N and 309.B. Notification shall be at least 180 calendar days before the permit expires.

### **II.E.3. Permit Extension**

This permit and all conditions herein will remain in effect beyond the permit's expiration date until the Administrative Authority issues a final decision. The Permittee must submit a timely, complete new permit application as provided in LAC 33:V.309.B and 315.A.

### **II.E.4. Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

### **II.E.5. Duty to Mitigate**

The Permittee shall immediately take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit as required by LAC 33:V.309.D.

#### **II.E.6. Proper Operation and Maintenance**

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related ancillary equipment) that are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

#### **II.E.7. Duty to Provide Information**

The Permittee shall furnish to the Administrative Authority, within a reasonable time, any information which the Administrative Authority may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Administrative Authority upon request, copies of records required by this permit and in accordance with LAC 33:V.309.H.

#### **II.E.8. Inspection and Entry**

The Permittee shall allow the Administrative Authority or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

**II.E.8.a.** enter upon the Permittee's premises where a regulated activity is located or conducted, or where records must be maintained under the conditions of this permit;

**II.E.8.b.** have access to and copy, at reasonable times, any records that must be maintained under the conditions of this permit;

**II.E.8.c.** inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operation regulated or required under this permit; and

**II.E.8.d.** sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Administrative Authority any substances or parameters at any location.

#### **II.E. 9. Monitoring and Records**

**II.E.9.a.** Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a

representative sample of the waste to be analyzed must be the appropriate method from Appendix I of 40 CFR Part 261. Laboratory methods must be those specified in

"SW-846", latest revision; Manual of Ground Water Quality - Procedures, 1981, EPA-600/2-81-160, as for Ground Water Monitoring at Solid Waste Disposal Facilities, 1977, EPA-530/SW-611, as revised; or an equivalent method.

**II.E.9.b. Records of monitoring information shall include:**

II.E.9.b.(1) the date, exact place, and time of sampling or measurements;

II.E.9.b.(2) the name(s) and signature(s) of the individual(s) who performed the sampling or measurements;

II.E.9.b.(3) the date(s) analyses were performed;

II.E.9.b.(4) the name(s) and signature(s) of the individual(s) who performed the analyses;

II.E.9.b.(5) the analytical techniques or methods used;

II.E.9.b.(6) the results of such analyses; and

II.E.9.b.(7) associated quality assurance performance data.

**II.E.9.c. Laboratory Quality Assurance/Quality Control**

In order to ensure the accuracy, precision, and reliability of data generated for use, the Permittee shall submit a statement, certified as specified in LAC 33:V.513 and included in the annual report, indicating that:

II.E.9.c.(1) any commercial laboratory providing analytical results and test data to the LDEQ required by this permit is accredited by the Louisiana Environmental Laboratory Accreditation Program (LELAP) in accordance with LAC 33:I. Subpart 3, Chapter 45. Laboratory data generated by commercial laboratories not accredited under LELAP will not be accepted by the LDEQ.

LAC 33:I. Subpart 3 (Chapters 45-49) provides requirements for the accreditation program. Regulations and a list of labs that have applied for accreditation are available on the LDEQ website:



In accordance with LAC 33:I.4501, the requirements for LELAP accreditation applies whenever data is:

- submitted on behalf of a facility;
- required as part of a permit application;
- required by order of the LDEQ;
- required to be included in a monitoring report submitted to the LDEQ;
- required to be submitted by contract; or
- otherwise required by the LDEQ regulations.

This includes, but is not limited to data from RCRA Trial Burns, Risks Burns, Risk Assessments, MACT Comprehensive Performance Tests, and data used for continuing compliance demonstrations.

**II.E.9.c.(2)** If the Permittee decides to use their own in-house laboratory for test and analysis, the laboratory is not required to be accredited by LELAP. However, the laboratory must document quality assurance/quality control procedures.

**II.E.9.c.(3)** For approval of equivalent testing or analytical methods, the Permittee may petition for a regulatory amendment under LAC 33:V.105.I and LAC 33:I.Chapter 9. In cases where an approved methodology for a parameter/analyte is not available or listed, a request to utilize an alternate method shall be submitted to the Administrative Authority for approval. Documentation must be submitted to the LDEQ that will verify that the results obtained from the alternate method are equal to or better than those obtained from EPA-accepted methods, as well as those deemed equivalent by the LDEQ.

#### **II.E.10. Retention of Records**

The Permittee shall maintain records from all ground water monitoring wells and associated groundwater surface elevations for the active life of the facility and for the post-closure care period.

The Permittee shall maintain records through the active life of the facility (including operation, closure and post-closure periods) as required by LAC 33:V.309.J and LAC 33:V.1529.A, B, and C. All records, including plans, must be furnished upon request and made available at all reasonable times as required by LAC 33:V.1529.C.

File copies shall be kept for LDEQ inspection for a period of not less than three years as required by LAC 33:V.317.B.

The Permittee shall, for the life of the permit, maintain records of all data used to complete the application for this permit and any supplemental information submitted under the Louisiana Hazardous Waste Control Law (LA. R.S. 30:2171 et seq.).

#### **II.E.11. Notices of Planned Physical Facility Changes**

The Permittee shall give notice to the Administrative Authority, as soon as possible, of any planned physical alterations or additions to the permitted facility, in accordance with LAC 33:V.309.L.1.

#### **II.E.12. Physical Facility after Modification**

For a closed unit being modified, the Permittee may not manage hazardous waste in the modified portion of the closed unit.

**II.E.12.a.** the Permittee has submitted to and received approval from the Administrative Authority, by certified mail or hand delivery, a letter signed by the Permittee and an independent registered professional engineer stating that the unit is complete and has been constructed or modified in compliance with the permit; and

**II.E.12.b.** the Administrative Authority has inspected the modified unit following a request to make final inspection by the Permittee and finds it is in compliance with the conditions of the permit and all applicable Conditions of LAC 33:V.Subpart 1, and has issued an Order to Proceed. The Permittee may then commence treatment, storage, or disposal of hazardous waste.

#### **II.E.13. Anticipated Noncompliance**

The Permittee shall give advance notice to the Administrative Authority of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

#### **II.E.14. Transfer of Permits**

This permit may be transferred to a new owner or operator only if it is modified or revoked and reissued pursuant to LAC 33:V.309.L.4, 321.B, 321.C.4, and 1531.

#### **II.E.15. Compliance Schedules**

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date (LAC 33:V.309.L.6).

#### **II.E.16. Emergency Unauthorized Discharge Notification**

In accordance with LAC 33:I.3915, in the event of an unauthorized discharge that results in an emergency condition (an emergency condition is any condition which could be reasonably expected to endanger the health and safety of the public, cause significant adverse impact to the land, water, or air environment, or cause severe damage to property), the Permittee shall notify the DPS (Department of Public Safety) 24-hour Louisiana Emergency Hazardous Materials Hotline by telephone at (225) 925-6595 immediately, but in no case later than one (1) hour after learning of the discharge. The DPS 24-hour Louisiana Emergency Hazardous Materials Hotline will subsequently notify the Department regarding the details of the discharge.

#### **II.E.17. Non-Emergency Unauthorized Discharge Notification**

In accordance with LAC 33:I.3917, in the event of an unauthorized discharge that exceeds a reportable quantity specified in LAC 33:I.Chapter 39.Subchapter E and/or results in contamination of the groundwaters of the state but does not result in an emergency condition, the Permittee shall promptly notify the Department within twenty-four (24) hours after learning of the discharge. Notification shall be made to the Office of Environmental Compliance, Emergency and Radiological Services Division, Single Point of Contact (SPOC) in accordance with the procedure and content requirements specified in LAC 33:I.3923.

#### **II.E.18. Unauthorized Discharge to Groundwater Notification**

In accordance with LAC 33:I.3919, in the event of an unauthorized discharge resulting in contamination of groundwaters of the state by moving in, into, within or on any saturated subsurface strata, the Permittee shall promptly notify the Department within twenty-four (24) hours after learning of the discharge. Notification shall be made to the Office of Environmental Compliance, Emergency and Radiological Services Division, SPOC in accordance with the procedure and content requirements specified in LAC 33:I.3923.

#### **II.E.19. Written Notification Reports for Unauthorized Discharges**

The Permittee shall submit written reports to the SPOC for any unauthorized discharges requiring notification under Conditions II.E.16, II.E.17 or II.E.18 of this permit. The written report shall be submitted in accordance with the procedure and content requirements specified in LAC 33:I.3925.

#### **II.E.20. Noncompliance Reporting**

The Permittee shall report orally within twenty-four (24) hours any noncompliance with the permit not reported under Condition II.E.16 or Condition II.E.17 of this permit that may endanger the human health or the environment. This report shall include at minimum the following information:

**II.E.20.a.** information concerning the release of any hazardous waste that may endanger public drinking water supplies; and

**II.E.20.b.** information concerning the release or discharge of any hazardous waste, or of a fire or explosion at the facility, that could threaten the environment or human health outside the facility. The description of the occurrence and its cause shall include:

**II.E.20.b.(1)** name, address, and telephone number of the owner or operator;

**II.E.20.b.(2)** name, address, and telephone number of the facility;

**II.E.20.b.(3)** date, time, and type of incident;

**II.E.20.b.(4)** name and quantity of materials involved;

**II.E.20.b.(5)** the extent of injuries, if any;

**II.E.20.b.(6)** an assessment of actual or potential hazard to the environment and human health outside the facility, where this is applicable; and

**II.E.20.b.(7)** estimated quantity and disposition of recovered material that resulted from the incident.

#### **II.E.21. Follow-up Written Report of Noncompliance**

The Permittee shall provide a written submission within five (5) days after the time the Permittee becomes aware of any noncompliance which may endanger human health or the environment not reported under Condition II.E.19 of this permit. The written submission shall contain a description of the noncompliance and its cause; the periods of noncompliance (including exact dates and times); whether the noncompliance has been corrected; and if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. If the Administrative Authority waives the requirement, then the Permittee submits a written report within fifteen (15) days after the time the Permittee becomes aware of the circumstances, as required by LAC 33:V.309.L.7.

#### **II.E.22. Other Noncompliance**

The Permittee shall report all other instances of noncompliance not otherwise required to be reported above and as required by LAC 33:V.309.L.1, L.2, and L.6, at the time required monitoring reports are submitted. The reports shall contain the information listed in Condition II.E.20 of this permit.

### **II.E.23. Other Information**

Whenever the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or that it submitted incorrect information in a permit application, or in any report to the Administrative Authority, the Permittee shall promptly submit such facts or information.

### **II.E.24. Signatory Requirement**

All applications, reports or other information submitted to the Administrative Authority shall be signed and certified according to LAC 33:V.507, 509, 511, and 513.

### **II.E.25. Schedule of Compliance**

**II.E.25.a.** Within sixty (60) days from the effective date of the permit, the Permittee must submit to the Administrative Authority a Notice of Intent to Request Use of the Corrective Action Strategy (CAS.) This Notice must be submitted in accordance with Condition VIII.B.1.

**II.E.25.b.** Within one hundred twenty (120) days from the effective date of the permit, the Permittee must hold a CAS Scoping Meeting. This meeting between the Permittee and Administrative Authority must occur in Accordance with the deadlines specified in Condition VIII.B.2.

**II.E.25.c.** The Permittee must submit a Conceptual Site Model as described in Condition VIII.D of this permit and in accordance with the deadlines specified in Appendix 1, Table 1.

**II.E.25.d.** Within sixty (60) days from the effective date of the permit, the Permittee must resubmit the RCRA Hazardous Waste Information Form (Part A Permit Application). This resubmission must include all applicable and updated information as it pertains to the site. Furthermore, the Permittee must meet all permit modification requirements in accordance with LAC 33:V.321, 322, and 323.

**II.E.25.e.** No later than thirty (30) days after the end of each calendar quarter, the Permittee must submit quarterly progress reports associated with all requirements of the August 26, 2003 Consolidated Compliance Order and Potential Penalty (HE-CN-02-0305). Each of these quarterly reports must include a description of each project, tasks completed, tasks remaining and the percentage of work completed. These items must be provided for each project in progress at the time the report is submitted. Note that the Administrative Authority shall allow the submittal of these progress reports in lieu of RFI quarterly reports until such time that the Order's items are addressed.

**II.E.25.f.** Within one hundred and twenty (120) days of the effective date of this Permit, the Permittee must implement the Recovery System Evaluation Workplan (dated May 2005) and provide a report documenting this implementation to the Administrative Authority. The Permittee must also provide a five (5) day notification of initiation of any field work associated with this workplan to the Administrative Authority.

**II.E.25.g.** Within sixty (60) days of the effective date of this Permit, The Permittee must submit a workplan for groundwater delineation. This workplan must address

- (a) the installation of three new monitoring wells (one 60-foot monitoring well to the north of M-11, one 60-foot monitoring well, and one 100-foot monitoring well between the change house and cooling tower.)
- (b) the acquisition of additional data from monitoring wells on the ExxonMobil site to the east.

**II.E.25.h.** Within one hundred and eighty (180) days of the effective date of this Permit, the Permittee must submit a workplan to address the multi-screened wells. The workplan will include provisions for modification and/or closure of the ten (10) multi-screened wells (RW-34, RW-38, RW-45, RW-46, RW-49, RW-50, RW-59, RW-62, RW-64, and RW-68). The workplan must also include recommendations regarding replacement wells as needed for recovery or plume definition purposes.

**II.E.25.i.** Arrangements with the local authorities are required for the units in post-closure under this permit. Within sixty (60) days of the effective date of this Permit, the Permittee must submit to the Administrative Authority complete documentation of arrangements with local authorities in accordance with LAC 33:V.1511.G. Furthermore, the Permittee must meet all permit modification requirements in accordance with LAC 33:V.321, 322, and 323.

#### **II.E.26. Additional Operating Standards**

(RESERVED)

#### **II.E.27. Updated Documents to Be Submitted Prior to Operation**

(RESERVED)

#### **II.E.28. Documents to Be Maintained at Facility Site**

**II.E.28.a.** Until post-closure is completed and certified by an independent registered professional engineer, the Permittee shall maintain at the facility the following documents and any amendments, revisions, and modifications to these documents. Any revision or changes shall be submitted with the annual report unless previously submitted.

**II.E.28.a.(1)** Waste Analysis Plan submitted in accordance with LAC 33:V.1519 (see Attachment 1).

**II.E.28.a.(2)** Personnel Training Plan and the training records as required by LAC 33:V.1515 (see Attachment 1).

**II.E.28.a.(3)** Contingency plan submitted in accordance with LAC 33:V.1513 (see Attachment 1).

**II.E.28.a.(4)** Arrangements with local authorities (see Condition II.E.25.i.).

**II.E.28.a.(5)** Post-Closure Plan submitted in accordance with LAC 33:V.3523 and any post-closure care requirements that may be required initially or through permit modifications in accordance with LAC 33:V.3523. (see Attachment 1).

**II.E.28.a.(6)** Cost Estimate for facility post-closure care submitted in accordance with LAC 33:V.3709 and any post-closure cost estimate that may be required initially or through permit modifications in accordance with LAC 33:V.3709 (see Attachment 1).

**II.E.28.a.(7)** Operating records plan as required by LAC 33:V.1529 (see Attachment 1).

**II.E.28.a.(8)** Inspection Plan developed in accordance with LAC 33:V.517.G and 1509.B (see Attachment 1).

**II.E.28.a.(9)** Security Plan developed in accordance with LAC 33:V.1507 (see Attachment 1).

**II.E.28.a.(10)** Groundwater Monitoring Program Document developed in accordance with LAC 33:V.3303 (see Attachment 1).

**II.E.28.a.(11)** Corrective Action Plan developed in accordance with LAC 33:V.3322 (see Attachment 1).

**II.E.28.b.** All proposed amendments, revisions and modifications to any plan or cost estimates required by this permit shall be submitted to the Administrative Authority for approval.

#### **II.E.29. Annual Report**

An annual report shall be submitted covering all hazardous waste units and their activities during the previous calendar year as required by LAC 33:V.1529.D.

#### **II.E.30. Manifest**

The Permittee shall report manifest discrepancies and unmanifested waste as required by LAC 33:V.309.L.8 and 9.

#### **II.E.31. Emissions**

Emissions from any hazardous waste facility shall not violate the Louisiana Air Quality Regulations. If air quality standards are exceeded, the site will follow air regulation protocol.

#### **II.E.32. Waste Discharges**

Waste discharges from any hazardous waste facility shall not violate the Louisiana Water Quality Regulations. If water standards are exceeded, the site will follow water quality regulation protocol.

#### **II.E.33. Non-Listed Hazardous Waste Facilities**

This permit is issued for those hazardous waste facilities listed in Condition IV (Permitted Closed Facilities). If the Permittee determines that an unpermitted hazardous waste facility exists, the Permittee must immediately notify the Administrative Authority in accordance with Condition II.E.23 of the General Permit Conditions.

#### **II.E.34. Compliance With Land Disposal Restrictions**

The Permittee shall comply with those land disposal restrictions set forth in LA. R.S. 30:2193, all regulations promulgated thereunder, and the HSWA portion of this permit (Conditions VII and VIII).

#### **II.E.35. Establishing Permit Conditions**

Permits for facilities with pre-existing groundwater contamination are subject to all limits, conditions, remediation and corrective action programs designated under LAC 33:V.311.D and LAC 33:V.3303.

#### **II.E.36. Obligation for Corrective Action**

Owners or operators of hazardous waste management units must have all necessary permits during the active life of the unit and for any period necessary to comply with the corrective action requirements in Condition VIII of this permit. The facility is obligated



to complete facility-wide corrective action regardless of the operational status of the facility.

#### **II.E.37. Attachments and Documents Incorporated by Reference**

All attachments and documents required by this permit, including all plans and schedules, are incorporated, upon approval by the Administrative Authority, into this permit by reference and become an enforceable part of this permit. When applicable, the Permittee must modify the permit according to LAC 33:V. Chapter 3. Since required items are essential elements of this permit, failure to submit any of the required items or submission of inadequate or insufficient information may subject the Permittee to enforcement action, which may include fines, suspension, or revocation of the permit.

Any noncompliance with approved plans and schedules shall be termed noncompliance with this permit. Written requests for extension of due dates for submittals may be granted by the Administrative Authority.

If the Administrative Authority determines that actions beyond those provided for, or changes to what is stated herein, are warranted, the Administrative Authority may modify this permit according to procedures in LAC 33:V.321.

### **III. GENERAL POST-CLOSURE CONDITIONS**

#### **III.A. DESIGN AND OPERATION OF THE POST-CLOSURE UNIT**

**III.A.1.** The Permittee must maintain all facilities to minimize the possibility of a fire, explosion, or any unauthorized sudden or nonsudden release of hazardous waste or hazardous waste constituents to air, soil, or water that could threaten human health or the environment.

**III.A.2.** The Permittee must not dispose of any new wastes.

#### **III.B. REQUIRED NOTICES**

(Reserved)

#### **III.C. GENERAL WASTE ANALYSIS**

The Permittee shall follow the procedures described in the Waste Analysis Plan (Attachment 1) and in accordance with LAC 33:V.1519.

**III.C.1.** The Permittee shall review the Waste Analysis Plan annually and report to the Administrative Authority, in the annual report, whether any revision is required to stay abreast of changes in EPA methods and/or State regulatory provisions.

**III.C.2.** If there is reason to believe that the hazardous waste has changed or the operation generating the hazardous waste has changed, the Permittee shall review and recharacterize all hazardous waste streams generated by the Permittee onsite and treated, stored or disposed onsite. The Permittee must recharacterize wastes in accordance with LAC 33:V.1519.A.3. This recharacterization shall include laboratory analyses which provide information needed to properly treat, store and dispose of the hazardous waste, including physical characteristics and chemical components of the waste. The results of this recharacterization shall be summarized in the Permittee's Annual Report.

**III.C.3.** The Permittee shall submit documentation or certification if the Permittee contracts with an outside laboratory for any service required by the Waste Analysis Plan or LAC 33:V.Chapter 15. This documentation or certification shall be resubmitted when a different laboratory is contracted. The Permittee shall also submit documentation that the laboratory complies with the accreditation requirements of LAC 33:1.Chapter 45.

**III.C.4.** In accordance with LAC 33:V.1519.B, the Waste Analysis Plan must meet all the sampling and QA/QC procedures of Condition II.E.9. All test procedures used by the Permittee shall be maintained on file by the Permittee and made available to the Administrative Authority upon request.

#### **III.D. SECURITY**

The Permittee must comply with the security provisions of LAC 33:V.1507, as referenced in Attachment 1.

#### **III.E. GENERAL INSPECTION REQUIREMENTS**

The Permittee must follow the Inspection Plan referenced in Condition II.E.28.a.(8) and Attachment 1. The Permittee must remedy any deterioration or malfunction discovered by an inspection as required by LAC 33:V.1509.C. Records of inspections must be kept as required by LAC 33:V.1509.D. The inspection schedule must include the regulatory requirements of LAC 33:V.517.G, 1509.A and B, and 3523.B.

#### **III.F. PERSONNEL TRAINING**

The Permittee must conduct personnel training as required by LAC 33:V.1515.A, B, and C. The training shall follow the outline referenced in Attachment 1. The Permittee must maintain all training documents and records as required by LAC 33:V. 1515.D and E.

#### **III.G. GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE**

The Permittee must take precautions as required by LAC 33:V.1517 to prevent accidental ignition or reaction of ignitable or reactive wastes.

### **III.H. LOCATION STANDARDS**

**III.H.1.** The Permittee has furnished evidence that it is in compliance with seismic standards as required by LAC 33:V.517.T.

**III.H.2.** The Permittee must not manage any hazardous waste on any portion of the property that lies within the 100 year flood plain (as identified in the Flood Insurance Rating Map) unless such areas are raised above this flood level or other means (e.g., levees) are provided to protect such areas from washouts, overtopping by wave action, soil erosion or other effects of such a flood as required by LAC 33:V.1503.B.3. Such site improvements must be certified by independent licensed professional engineers and approved by LDEQ prior to any hazardous waste and/or hazardous waste units being placed thereon.

### **III.I. PRECIPITATION RUN-ON AND RUN-OFF**

The Permittee must provide for the control by diversion or treatment of run-on and run-off resulting from a rainfall of at least twelve (12) inches, occurring during a period of twenty-four (24) hours in conformity with locally available records of a twenty-four (24) hour rainfall as per LAC 33:V.1503.B.2. The Permittee shall comply with the requirements of LAC 33:V.2521.B and 2911.B.

### **III.J. HURRICANE EVENTS**

The Permittee must initiate those applicable portions of the Contingency Plan during a hurricane as well as appropriate actions required by LAC 33:V.1507, 1509 and 1511.

### **III.K. PREPAREDNESS AND PREVENTION**

#### **III.K.1. Required Equipment**

At a minimum, the Permittee must install and maintain the equipment set forth in the Contingency Plan, as required by LAC 33:V.1511.C.

#### **III.K.2. Testing and Maintenance of Equipment**

The Permittee must test and maintain the equipment specified in Condition III.K.1 to insure its proper operation in time of emergency. The testing and maintenance of the equipment must be documented in the operating record.

#### **III.K.3. Access to Communications or Alarm Systems**

The Permittee must maintain access to the communications or alarm system as required by LAC 33:V.1511.E.1 and 1511.E.2.

#### **III.K.4. Arrangements with Local Authorities**

The Permittee shall document in the annual report that the requirements of LAC 33:V.1511.G have been met. This documentation shall include those state and local agencies involved and those facilities and operations covered. Documentation of written arrangements with state and local agencies shall also be included in this report. Where state or local authorities decline to enter into such arrangements, the Permittee must document the refusal in the operating record.

### **III.L. CONTINGENCY PLAN**

#### **III.L.1. Implementation of Plan**

The Permittee must immediately carry out the provisions of the Contingency Plan (as referenced in Attachment 1), and follow the emergency procedures described by LAC 33:V.1513.F whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents that threaten or could threaten human health or the environment.

#### **III.L.2. Copies of Plan**

The Permittee must comply with the requirements of LAC 33:V.1513.C.

#### **III.L.3. Amendments to Plan**

The Permittee must review and immediately amend, if necessary, the Contingency Plan as required by LAC 33:V.1513.D.

#### **III.L.4. Emergency Coordinator**

The Permittee must comply with the requirements of LAC 33:V.1513.E, and 322.B.6 concerning the emergency coordinator.

### **III.M. MANIFEST SYSTEM**

The Permittee shall comply with the manifest requirements of LAC 33:V. Chapter 11.

### **III.N. RECORD KEEPING AND REPORTING**

#### **III.N.1. Operating Record**

The Permittee shall maintain a written operating record at the facility in accordance with LAC 33:V.1529.A, B, C.

### **III.N.2. Annual Report**

The Permittee must comply with the annual report requirements of LAC 33:V.1529.D.

### **III.N.3. Operations Manual**

The Permittee shall compile and keep current an operations manual covering all aspects of the Permittee's treatment, storage and disposal facilities.

## **III.O. POST-CLOSURE**

### **III.O.1. Post-Closure Care**

The Permittee must manage:

Landfills D-1, D-2 (which includes Surface Impoundments T-2, T-3, T-4, T-6, T-7, and T-8) and D-3, Surface Impoundments T-1 and T-5, and Container Storage Areas S-1 and S-2 in accordance with this permit, LAC 33:V. Chapter 35, Subchapter B, LAC 33:V.2521, and LAC 33:V.2911.

### **III.O.2. Amendment to Post-Closure Permit**

The Permittee must request modification to this post-closure permit when necessary, in accordance with LAC 33:V.3523.D. and LAC 33:V.321.

### **III.O.3. Post-Closure Maintenance**

After final closure, the Permittee must comply with all post-closure requirements contained in LAC 33:V.3519 through 3527, including maintenance and monitoring throughout the post-closure care period specified in LAC 33:V.3521.A.1. The Permittee must maintain all units in post-closure according to the requirements in Condition V.B.

### **III.O.4. Post-Closure Restrictions**

The Administrative Authority may require, at partial and final closure, continuation of any of the security requirements of LAC 33:V.1507, during part or all of the post-closure care period when access by the public or domestic livestock may pose a hazard to human health.

### **III.O.5. Post-Closure Property or Site Use**

**III.O.5.a.** Post-closure use of property on or in which hazardous wastes remain after partial or final closure must never be allowed to disturb the integrity of the final cover, liner(s), or any other components of the containment system, or the

function of the permitted closed unit's monitoring systems, unless the Administrative Authority finds that the disturbance:

**III.O.5.a.(1)** is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or

**III.O.5.a.(2)** is necessary to reduce a threat to human health or the environment.

**III.O.5.b.** Any post-closure activity other than that specified in this permit must have prior approval of the Administrative Authority.

### **III.O.6. Post-Closure Contact**

The Permittee must provide the name, address, and phone number of the person or office to contact about the permitted post-closure units during the post-closure care period.

### **III.O.7. Certification of Completion of Post-Closure Care**

No later than sixty (60) days after completion of the established post-closure care period for the specified unit, the Permittee must submit to the Administrative Authority, by registered mail, a certification that the post-closure care period for the hazardous waste disposal unit(s) was performed in accordance with the specifications in the approved post-closure plan. The certification must be signed by the Permittee and an independent registered professional engineer. Within sixty (60) days after receipt of the certification the Administrative Authority will notify the owner or operator that he is no longer required to maintain financial assurance for post-closure care of that unit, unless the Administrative Authority has reason to believe that post-closure care was not conducted in accordance with the approved post-closure plan.

The certification of post-closure care shall include the certification statement found in the LAC 33:V.513.A or the current certification statement in the Louisiana hazardous waste regulations at the time of completion of post-closure care.

## **III.P. COST ESTIMATE FOR CARE OF THE POST-CLOSURE UNIT**

**III.P.1.** The Permittee must maintain a post-closure cost estimate for the permitted and associated structures as required by LAC 33:V.3709.

**III.P.2.** The Permittee must maintain and adjust the post-closure cost estimate for inflation, as specified in LAC 33:V.3709.B, C, D, and for other circumstances that increase the cost of post-closure.

**III.P.3.** The Permittee must base all post-closure cost estimates on the assumption that a third party contractor performs post-closure monitoring and maintenance in accordance with LAC 33:V.3709.A.

**III.P.4.** The Permittee must consider the inventory and process conditions and their impact on the post-closure cost estimate for any resubmittal.

**III.P.5.** During the life of the facility, the Permittee must keep, at the facility, its latest post-closure cost estimates, as necessary, to comply with LAC 33:V.3709.D.

**III.P.6.** Throughout the active life of the facility, the Permittee must adjust and revise its post-closure cost estimates, as necessary, to comply with the provisions of LAC 33:V.3709.

### **III.Q. FINANCIAL ASSURANCE FOR THE POST-CLOSURE UNIT**

Throughout the post-closure care period, the Permittee must provide updates for its financial assurance mechanisms, as necessary, to comply with the provisions of LAC 33:V.3711.

### **III.R. LIABILITY REQUIREMENTS**

(RESERVED)

### **III.S. INCAPACITY OF THE PERMITTEE**

The Permittee must comply with LAC 33:V.3717 whenever bankruptcy is initiated for the Permittee or its institutions providing financial assurance. If insurance is used for compliance with LAC 33:V.3715, the Permittee must immediately notify the Administrative Authority if the insurance company is placed in receivership. The Permittee must establish other financial assurance or liability coverage within sixty (60) days after such an event.

### **III.T. POST-CLOSURE NOTICES**

If the Permittee or any subsequent Permittee of the land upon which this hazardous waste disposal unit is located wishes to remove hazardous wastes and hazardous waste residues, the liner or contaminated soils, he must request a modification to the post-closure permit in accordance with the applicable requirements in LAC 33:V. Chapters 3 and 7. The Permittee must demonstrate that the removal of hazardous wastes will satisfy the criteria of LAC 33:V.3521. By removing hazardous waste, the Permittee may become a generator of hazardous waste and must manage it in accordance with all applicable requirements of LAC 33:V. Subpart 1. If he is granted a permit modification or otherwise granted approval to conduct such removal activities, the Permittee may request that the Administrative Authority approve either:

**III.T.1.** the removal of the notation on the deed to the facility property or other instrument normally examined during title search; or

**III.T.2.** the addition of a notation to the deed or instrument indicating the removal of the hazardous waste.

#### IV. PERMITTED CLOSED UNITS

This permit is applicable only to the units found in Table 1 located on the property of Ethyl Corporation, East Baton Rouge Parish, Louisiana. This permit also applies to any appurtenances associated with these units. The appurtenances are defined as any run-on/run-off control systems, leachate collection/leak detection systems, tanks, and/or piping and instrumentation associated with these regulated units. If any additional appurtenances are added in the future, they would be addressed through a permit modification as required by regulation and this permit

TABLE 1  
INVENTORY AT CLOSURE

UNIT NAME	UNIT TYPE	CAPACITY
Area D-1	Landfill	59,000 yd <sup>3</sup>
Area D-2	Surface Impoundment T-2	600 ft <sup>3</sup> (T-2 only)
	Surface Impoundment T-3	55,000 yd <sup>3</sup> (for D-2 only)
	Surface Impoundment T-4	400,000 ft <sup>3</sup> (T-4 only)
	Landfill whose cap extends over three permitted surface impoundments	545,000 ft <sup>3</sup> (T-3 only)
Area D-3	Landfill	34,000 yd <sup>3</sup>
Surface Impoundment T-1	Surface Impoundment	15,000 ft <sup>3</sup>
Surface Impoundment T-5	Surface Impoundment	1,400,000 ft <sup>3</sup>
Surface Impoundment T-6	Surface Impoundment	2200 yd <sup>3</sup>
Surface Impoundment T-7	Surface Impoundment	5200 yd <sup>3</sup>
Surface Impoundment T-8	Surface Impoundment	3000 yd <sup>3</sup>
Container Storage Area S-1	Container Storage Area	3740 gallons
Container Storage Area S-2	Container Storage Area	108,000 gallons



## **V. PERMIT CONDITIONS APPLICABLE TO PERMITTED CLOSED UNITS**

### **V.A. POST-CLOSURE CARE PERIOD**

The post-closure care period will be in effect for the period of thirty (30) years, unless extended or shortened by the Administrative Authority, as specified in LAC 33:V.3521.A.1 and 2, Length of Post-Closure.

V.A.1 Area D-1 Landfill: Certified closed on 11/1/1991, verified 4/15/1993

V.A.2. Area D-2 Landfill: Certified closed on 11/1/1991, verified 4/15/1993

V.A.3. Surface Impoundment T-2: Certified closed on 11/1/1991, verified 4/15/1993

V.A.4. Surface Impoundment T-3: Certified closed on 11/1/1991, verified 4/15/1993

V.A.5. Surface Impoundment T-4: Certified closed on 11/1/1991, verified 4/15/1993

V.A.6. Area D-3 Landfill: Certified closed on 11/1/1991, verified 4/15/1993

V.A.7. Surface Impoundment T-1: Certified closed on 2/1/1989, verified via inclusion on the Post-Closure Permit issued on 8/28/1995

V.A.8. Surface Impoundment T-5: Certified closed on 1/7/1998, verified on 3/1/1999

V.A.9. Surface Impoundment T-6: Certified closed on 4/1/1990, verified on 5/6/2008

V.A.10. Surface Impoundment T-7: Certified closed on 4/1/1990, verified on 5/6/2008

V.A.11. Surface Impoundment T-8: Certified closed on 4/1/1990, verified on 5/6/2008

V.A.12. Container Storage Area S-1: Certified closed on 5/25/1989, verified on 9/7/1989

V.A.13. Container Storage Area S-2: Certified closed on 3/26/1986, verified 4/18/2008

### **V.B. POST-CLOSURE MAINTENANCE**

After final closure, the owner or operator must comply with all post-closure requirements contained in LAC 33:V.3519 through 3527 and Condition III.O of this permit, including maintenance and monitoring throughout the post-closure care period specified in the permit under Condition V.A and LAC 33:V.3521.A.1. The owner or operator must:

- V.B.1. for all permitted units, maintain the integrity and effectiveness of the final cover, including making repairs as necessary to correct the effects of settling, subsidence, erosion, or other events;

V.B.2. for all permitted units, maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of LAC 33:V.Chapter 33;

V.B.3. for all permitted units, manage a run-on and run-off control system to prevent erosion at and other damage to the final cover;

V.B.4. for all permitted units, maintain the cover with a final cover designed, constructed and maintained to

V.B.4.a. provide long-term minimization of migration of liquids through the landfill;

V.B.4.b. function with minimal maintenance at all permitted units;

V.B.4.c. promote drainage and minimize erosion or abrasion of the final cover at all permitted units;

V.B.4.d. accommodate settling and subsidence, as necessary, so that the cover's integrity is maintained for all permitted units; and

V.B.4.e. have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present at the landfill.

V.B.5. The annual report shall include a Post-Closure activity report for the permitted units.

V.B.6. For Landfills, maintain and monitor leak detection in accordance with LAC 33:V.2521.B.2.

V.B.7. For Landfills, continue to operate the leachate collection system in accordance with LAC 33:V.2521.B.3.

V.B.8. For Landfills, protect and maintain all surveyed benchmarks in accordance with LAC 33:V.2521.B.6.

#### **V.C. POST-CLOSURE RESTRICTIONS**

The Administrative Authority may require, at partial and final closure, continuation of any of the security requirements of LAC 33:V.1507, during part or all of the post-closure period when access by the public or domestic livestock may pose a hazard to human health.

#### **V.D. POST-CLOSURE USE OF PROPERTY**

V.D.1. Post-closure use of property on or in which hazardous wastes remain after partial or final closure must never be allowed to disturb the final cover, liner(s), or any other

components of the containment system, or the function of the permitted closed unit's monitoring systems, unless the Administrative Authority find that the disturbance:

V.D.1.a. is necessary to the proposed use of the property and will not increase the potential hazard to human health or the environment; or

V.D.1.b. is necessary to reduce a threat to human health of the environment.

V.D.2. Any post-closure activity other than that specified in this permit must have prior approval of the Administrative Authority.

## **VI. GROUNDWATER PROTECTION**

### **VI.A. APPLICABILITY**

The regulations of LAC 33:V, Chapters 3, 5, 15, 29, 33, 35, and 37, and Louisiana Hazardous Waste Control Law Revised Statute R.S., 30:2171 of the Environmental Quality Act, R.S., 30:2001 et seq., and the provisions of this section shall apply to groundwater protection programs at the units identified in Condition IV, Table 1 of this permit. All requirements and conditions under IV must be satisfied and shall apply until the Administrative Authority has accepted the certification of completion of post-closure care required by LAC 33:V.3527 and under Condition III.O.7 of this permit. This includes compliance, closure, and post closure care periods. The units referenced in Condition IV, Table 1 of the permit are subject to post-closure groundwater monitoring.

If groundwater contamination is confirmed as a result of operations related to past or present hazardous waste management facility activities associated with this site, the Permittee shall establish, expand or continue, assessment and corrective action programs in accordance with the requirements of LAC 33:V.Chapter 33 and as subsequently directed by the Administrative Authority.

### **VI.B. REQUIRED PROGRAMS**

(Reserved per Section VI.C.)

### **VI.C. ALTERNATIVE MONITORING REQUIRMENTS**

Pursuant to LAC 33:V.3301.G, the Administrative Authority has determined that:

1) the regulated units are situated among solid waste management units (or areas of concern), a release has occurred, and both the regulated units and one or more solid waste management unit(s) (or areas of concern) are likely to have contributed to the release; and

2) it is not necessary to apply the groundwater monitoring and corrective action requirements of LAC 33:V.Chapter 33 because alternative requirements will protect human health and the environment.

Accordingly, the Administrative Authority may replace all or part of the requirements of LAC 33: Chapter 33, applying to a regulated unit (i.e., LAC 33:V.3303 through 3321) with alternative requirements for groundwater monitoring and corrective action for releases to groundwater. This section provides a description of the alternative monitoring requirements.

Upon successful demonstration by the Permittee that the corrective action associated with the regulated units warrants termination, the Permittee must submit to the Administrative Authority an application for permit modification pursuant to LAC 33:V.321 to terminate the corrective action. If the regulated units were closed with waste and/or source medium (e.g., contaminated soil) left in place, the application must include provisions to establish a required program (LAC 33:V.3303 and Condition VI.B) including either a Detection Monitoring Program or Compliance Monitoring Program (as determined by COC concentrations remaining in groundwater) on a schedule approved by the Administrative Authority. Pursuant to LAC 33:V.3313, if corrective action has been implemented, the compliance period cannot end until after the Permittee has demonstrated that the corrective action has been effectively implemented and the groundwater protection standard has not been exceeded for a period of three (3) consecutive years.

# **HAZARDOUS AND SOLID WASTE AMENDMENTS (HSWA)**

## **VII. GENERAL CONDITIONS PURSUANT TO THE HAZARDOUS AND SOLID WASTE AMENDMENTS**

### **VII.A. STANDARD CONDITIONS**

#### **VII.A.1. Waste Minimization**

Annually, by March 1, for the previous year ending December 31, the Permittee shall enter into the operating record as required by LAC 33:V.1529.B.19, a statement certified according to LAC 33:V.513.A specifying that the Permittee has a program in place to reduce the volume and toxicity of hazardous wastes generated by the facility's operation to the degree determined by the Permittee to be economically practicable; and that the proposed method of treatment, storage, or practicable disposal method that is currently available to the Permittee minimizes the present and future threat to human health and the environment. A current description of the program shall be maintained in the operating record and a copy of the annual certified statement shall be submitted to the Administrative Authority. The following criteria should be considered for the program:

**VII.A.1.a.** Any written policy or statement that outlines goals, objectives, and/or methods for source reduction and recycling of hazardous waste at the facility;

**VII.A.1.b.** Any employee training or incentive programs designed to identify and implement source reduction and recycling opportunities;

**VII.A.1.c.** An itemized list of the dollar amounts of capital expenditures (plant and equipment) and operating costs devoted to source reduction and recycling of hazardous waste;

**VII.A.1.d.** Factors that have prevented implementation of source reduction and/or recycling;

**VII.A.1.e.** Sources of information on source reduction and/or recycling received at the facility (e.g., local government, trade associations, suppliers, etc.);

**VII.A.1.f.** An investigation of additional waste minimization efforts that could be implemented at the facility. This investigation would analyze the potential for reducing the quantity and toxicity of each waste stream through production reformulation, recycling, and all other appropriate means. The analysis would include an assessment of the technical feasibility, cost, and potential waste reduction for each option;

**VII.A.1.g.** A flow chart or matrix detailing all hazardous wastes the facility produces by quantity, type, and building/area;

**VII.A.1.h.** A demonstration of the need to use those processes that produce a particular hazardous waste due to a lack of alternative processes or available technology that would produce less hazardous waste;

**VII.A.1.i.** A description of the waste minimization methodology employed for each related process at the facility. The description should show whether source reduction or recycling is being employed;

**VII.A.1.j.** A description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years; and

**VII.A.1.k.** The Permittee may meet the requirements for waste minimization by developing an Environmental Management System according to the EPA document, Integrated Management System Implementation Guide, EPA 744-R-00-011, October 2000, found on the EPA website at [www.epa.gov/opptintr/dfe/pubs/iems/iems\\_guide/index.htm](http://www.epa.gov/opptintr/dfe/pubs/iems/iems_guide/index.htm).

#### **VII.A.2. Dust Suppression**

Pursuant to LAC 33:V.4139.B.4, and the Toxic Substances Control Act, the Permittee shall not use waste or used oil or any other material which is contaminated with dioxin, polychlorinated biphenyls (PCBs), or any other hazardous waste (other than a waste identified solely on the basis of ignitability), for dust suppression or road treatment.

#### **VII.A.3. Failure to Disclose**

The Permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts at any time may be cause for termination or modification of this Permit in accordance with LAC 33:323.B.2 and 3.

#### **VII.A.4. Suspension, Modification, or Revocation and Reissuance, and Termination of Permit**

This Permit may be modified, revoked and reissued, or terminated for cause as specified in LAC 33:V.323. The filing of a request by the Permittee for a permit modification, revocation and reissuance, termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the applicability or enforceability of any permit condition.

**VII.A.4.a.** If the Administrative Authority tentatively decides to modify or revoke and reissue a permit under LAC 33:V.321.C. or 323, a draft permit shall be prepared incorporating the proposed changes. The Administrative Authority may request additional information and, in the case of a modified permit, may require the submission of an updated permit application.

**VII.A.4.b.** The Permittee may initiate permit modification proceedings under LAC 33:V.321.C. All applicable requirements and procedures as specified in LAC 33:V.321.C shall be followed.

**VII.A.4.c.** Modifications of this Permit do not constitute a reissuance of the Permit.

#### **VII.A.5. Permit Review**

This Permit may be reviewed by the Administrative Authority five years after the date of permit issuance and may be modified as necessary as provided for in LAC 33:V.321.C. Nothing in this section shall preclude the Administrative Authority from reviewing and modifying the Permit at any time during its term.

#### **VII.A.6. Compliance with Permit**

Compliance with a RCRA permit during its term constitutes compliance, for purposes of enforcement, with subtitle C of RCRA except for those requirements not included in the permit which:

**VII.A.6.a.** Become effective by statute;

**VII.A.6.b.** Are promulgated under LAC 33:V.Chapter 22 restricting the placement of hazardous wastes in or on the land; or

**VII.A.6.c.** Are promulgated under LAC 33:V.Chapters 23, 25 and 29 regarding leak detection systems for new and replacement surface impoundment, waste pile, and landfill units, and lateral expansions of surface impoundment, waste pile, and landfill units. The leak detection system requirements include double liners, construction quality assurance (CQA) programs, monitoring action leakage rates, and response action plans, and will be implemented through the procedures of LAC 33:V.321.C Class 1 permit modifications.

#### **VII.A.7. Specific Waste Ban**

**VII.A.7.a.** The Permittee shall not place in any land disposal unit the wastes specified in LAC 33:V. Chapter 22 after the effective date of the prohibition unless the Administrative Authority has established disposal or treatment standards for the hazardous waste and the Permittee meets such standards and other applicable conditions of this Permit.

**VII.A.7.b.** The Permittee may store wastes restricted under LAC 33:V.Chapter 22 solely for the purpose of accumulating quantities necessary to facilitate proper recovery, treatment, or disposal provided that it meets the requirements of LAC 33:V.2205 including, but not limited to, clearly marking each tank or container.



VII.A.7.c. The Permittee is required to comply with all applicable requirements of LAC 33:V.2245 as amended. Changes to the Waste Analysis Plan will be considered permit modifications at the request of the Permittee, pursuant to LAC 33:V.321.C.

VII.A.7.d. The Permittee shall review the waste analysis plan and analyze the waste when a process changes to determine whether the waste meets applicable treatment standards. Results shall be maintained in the operating record pursuant to Condition III.C.1 and 2.

#### **VII.A.8. Information Submittal for the Corrective Action Strategy**

Failure to comply with any condition of the Permit, including information submittals, constitutes a violation of the Permit and is grounds for enforcement action, permit amendment, termination, revocation, suspension, or denial of permit renewal application. Falsification of any submitted information is grounds for termination of this Permit (LAC 33:V.323.B.3).

The Permittee shall ensure that all plans, reports, notifications, and other submissions to the Administrative Authority required by this Permit using the Corrective Action Strategy are signed and certified in accordance with LAC 33:V.Chapter 5, Subchapter B. All submittals required under the corrective action strategy must conform to those requirements outlined in the RECAP (see Condition VIII of this permit). Variance from content and/or formatting guidelines provided under the RECAP shall be requested by the Permittee prior to submittal to the Administrative Authority, as deemed necessary. Approval or disapproval of such a request with further guidance on content and formatting will be provided by the Administrative Authority, as deemed necessary. Five (5) copies each of these plans, reports, notifications or other submissions and one (1) electronic copy (3.5" IBM compatible disk or CD-ROM) of all portions thereof which are in word processing format shall be submitted to the Administrative Authority by Certified Mail or hand delivered to:

**Louisiana Department of Environmental Quality  
Office of Environmental Assessment  
Environmental Technology Division  
P.O. Box 4314  
Baton Rouge, LA 70821-4314**

A summary of the planned reporting milestones pursuant to the corrective action requirements of this Permit is found in Appendix 1, Table 1.

#### **VII.A.9. Data Retention**

All raw data, such as laboratory reports, drilling logs, bench-scale or pilot-scale data, and other supporting information gathered or generated during activities undertaken pursuant to this Permit shall be maintained at the facility during the term of this Permit, including any reissued Permits.

#### **VII.A.10. Management of Wastes**

All solid wastes which are managed pursuant to a remedial measure taken under the corrective action process or as an interim measure addressing a release or the threat of a release from a solid waste management unit shall be managed in a manner protective of human health and the environment and in compliance with all applicable Federal, State and local requirements. As a response to the Louisiana legislature mandate La. R.S. 30:2272 (Act 1092 of the 1995 Regular Session) to develop minimum remediation standards, the LDEQ promulgated the Risk Evaluation Corrective Action Program (RECAP). RECAP's tiered approach to risk evaluation and corrective action establishes not only across the board numerical standards for most media, but also allows for the development of more site-specific numerical standards, as warranted. The Permittee is required to comply with all applicable requirements of RECAP. Approval of units for managing wastes and conditions for operating the units shall be granted through the permitting process.

#### **VII.B. EMISSION STANDARDS - PROCESS VENTS, EQUIPMENT LEAKS, TANKS, SURFACE IMPOUNDMENTS, AND CONTAINERS (AA-BB-CC AIR REGULATIONS)**

**(RESERVED)**

#### **VII.C. SPECIFIC CONDITION - CLOSURE**

**(RESERVED)**

## VIII. SPECIAL CONDITIONS PURSUANT TO HAZARDOUS AND SOLID WASTE AMENDMENTS—CORRECTIVE ACTION STRATEGY

Corrective Action for Releases: Section 3004(u) of RCRA, as amended by the Hazardous and Solid Waste Amendments (HSWA), and LAC 33:V.3322 require that permits issued after November 8, 1984, address corrective action for releases of hazardous waste or hazardous constituents from any solid waste management unit at the facility, regardless of when the waste was placed in the unit.

EPA's traditional RCRA corrective action approach is structured around several elements common to most activities. In the first phase, RCRA facility assessment (RFA), EPA or the authorized state assesses the facility to identify releases and determine the need for corrective action. In the second phase, RCRA facility investigation (RFI), the facility conducts a more detailed investigation to determine the nature and extent of contaminants released to ground water, surface water, air, and soil. If remedial action is needed, a third phase, corrective measures study (CMS), is started. During this phase, the facility conducts a study, which when completed, describes the advantages, disadvantages, and costs of various cleanup options. After selection of a final remedy, the fourth phase; corrective measures implementation (CMI), is initiated. The facility is required to design, construct, operate, maintain, and monitor the final remedy(s).

The Corrective Action Strategy (CAS) is an alternate corrective action approach that can be implemented during any phase of corrective action for a release area. The Permittee shall use the CAS approach as the framework for corrective action to clarify, facilitate and expedite the process, and shall use the **Louisiana Department of Environmental Quality Risk Evaluation/Corrective Action Program (RECAP)** for screening and media-specific cleanup standards. EPA has interpreted the term "release" to mean, "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment." (50 FR 2873, July 15, 1985). The CAS refers to "release areas" as solid waste management units (SWMUs) and areas of concern (AOCs) while the RECAP refers to release areas as areas of investigation (AOIs). SWMUs and AOCs may also be referred to as "AOIs" when investigated and managed under the RECAP.

### VIII.A. ALTERNATE CORRECTIVE ACTION

#### VIII.A.1. Introduction to CAS

This Permit will utilize the CAS Guidance Document ([www.epa.gov/Arkansas/6pd/rcra\\_c/pd-o/riskman.htm](http://www.epa.gov/Arkansas/6pd/rcra_c/pd-o/riskman.htm)) developed by the U.S. Environmental Protection Agency (EPA) Region 6 whenever the Administrative Authority determines that it will serve to facilitate the corrective action. The CAS Guidance Document shall be utilized to the fullest extent practicable for planning and implementation of the corrective action. The CAS in this Permit shall not supersede existing Federal, State, and local regulations. The two primary objectives are to prioritize corrective action at the facility, and streamline corrective action administrative procedures, resulting in the protection of human health and the environment.

The CAS is a performance-based approach; using data quality objectives, investigations begin with the endpoint in mind. The CAS is a risk management strategy that can be implemented during any phase of corrective action. However, the CAS need not be applied to work that has already been completed to the satisfaction of the Administrative Authority. Performance standards are established at the beginning of the corrective action process, allowing earlier and more focused implementation. Releases are screened using RECAP screening numbers to determine the priority of corrective action, and remedial alternatives are selected on the basis of their ability to achieve and maintain the established performance standards.

There is no one specific path through the CAS process. The CAS is a facility-wide approach, focusing corrective action on releases that pose the greatest risk first. Screening releases will also enable some areas of interest to qualify for no further action at this time (Condition VIII.A.3.a.), thus resources can be used to best benefit the protection of human health and the environment. The CAS process also considers activities previously conducted under the traditional RCRA corrective action process. Appendices 1 and 2 of this permit contain a summary of corrective action activities completed to date and also describes where the Permittee is in the CAS process at the time of issuance of this permit. The applicability of various provisions of the CAS will depend on where the Permittee is in the CAS process as detailed in Appendix 2.

The traditional RCRA corrective action process and reports (i.e., RFIs, CMSs, CMIs, etc.) are not elements of the CAS. However, the use of information and reports from the traditional corrective action process, if available, is encouraged, in addition to new site-specific information.

The Administrative Authority, through an agency-initiated permit modification, may remove the CAS as the means of facility-wide corrective action in the case of the failure of the Permittee to disclose information, abide by the terms and conditions of this permit, adhere to agreed schedules, or show adequate progress; or should an impasse occur between the Permittee and the Administrative Authority. The Administrative Authority will institute other means of corrective action (such as traditional corrective action) at the facility through modification of this permit.

#### **VIII.A.2. Performance Standards**

Expectations for the outcome of corrective action at a facility are established in the CAS by three performance standards as defined in Conditions VIII.A.2.a through c. The Permittee's proposed performance standards shall be presented during the scoping meeting. The Permittee must justify the proposed performance standards through evaluation and documentation of land use, ground water designation (current and reasonably expected future use), types of receptors present, exposure pathways, etc.; as described in RECAP, Chapter 2. Through the application of the performance standards and RECAP, the Permittee and Administrative Authority shall determine whether a release must be addressed through corrective action, and whether implemented corrective actions are protective of human health and the environment.

The Permittee shall submit the performance standards in writing along with the Conceptual Site Model (Condition VIII.D) within one-hundred and twenty (120) days after the scoping meeting. The Administrative Authority may either approve the performance standards proposed by the Permittee or establish performance standards that the Administrative Authority deems necessary to protect human health and the environment.

The three CAS performance standards are defined below. The order in which the performance standards are listed does not indicate that one performance standard takes priority over another. All applicable performance standards must be achieved by the Permittee.

#### **VIII.A.2.a. Source Control Performance Standard**

Source control refers to the control of materials that include or contain hazardous wastes or hazardous constituents that act as a reservoir for migration of contamination to soil, sediment, ground water, surface water, or air, or as a source for direct exposure.

The facility must determine if source material is present. Removal, containment, treatment, or a combination of the three, must be evaluated on a case-by-case basis. Controlling source material is a predominating issue in the CAS, and must be addressed to ensure protectiveness over time. Prioritization of the SWMUs and AOCs does not mean avoidance of controlling source materials.

#### **VIII.A.2.b. Statutory and Regulatory Performance Standard**

Applicable statutory and regulatory requirements (Federal, State, and local) must be identified. These requirements may dictate media-specific contaminant levels (e.g., maximum contaminant levels (MCLs) in drinking water) that must be achieved and may become a performance standard for the Permittee.

#### **VIII.A.2.c. Final Risk Goal Performance Standard**

The final risk goal is the level of protection to be achieved and maintained by the Permittee. The final risk goal shall be based on site-specific issues including land use, special subpopulations, contaminant concentrations based on acceptable risk, location at which the levels are measured, and the remediation time frame, as specified by RECAP.

One final risk goal may apply to the entire facility, but it is more likely that different releases will require different final risk goals due to variations in location of releases, land use, proximity of receptors, etc. The final risk goal will be based on sound risk assessment methodologies (Condition VIII.A.3).

### **VIII.A.3. Use of RECAP**

The latest edition of the RECAP document shall be used by the Permittee to determine the need for further corrective actions under this permit. The RECAP consists of a tiered framework comprised of a Screening Option (SO), and three Management Options (MO). The tiered management options allow site evaluation and corrective action efforts to be tailored to site conditions and risks. As the MO level increases, the approach becomes more site-specific and hence, the level of effort required to meet the objectives of the Option increases.

The RECAP shall be used by the Permittee to evaluate data quality and data usability (RECAP Section 2.4 and 2.5), to determine the identity of an AOI as described in RECAP Section 2.6, and for estimations of Area of Investigation Concentrations and Groundwater Compliance Concentrations for each media as defined in RECAP Section 2.8.

The RECAP shall be used by the Permittee to evaluate land use as described in RECAP Section 2.9, and groundwater/aquifer use as described in RECAP Section 2.10.

The RECAP shall be used by the Permittee to prioritize AOCs, SWMUs, and AOIs that require remediation so site investigations are focused on the release areas that pose the greatest risk. As the CSM is compiled, the Permittee shall assess historical data (RECAP Section 2.5) and use the following management options, as appropriate, to address each release site.

#### **VIII.A.3.a. Screening Option**

The Permittee shall use the Screening Standards (SS) which are LDEQ-derived screening numbers for soil and groundwater for non-industrial and industrial land use scenarios. The SS shall be used to demonstrate that an AOI does not pose a threat to human health and the environment and, hence does not require further action at this time (NFA-ATT) or that further evaluation is warranted under a higher Management Option.

#### **VIII.A.3.b. Management Option 1**

The Permittee shall use Management Option 1 (MO-1) which provides a RECAP standard (RS) derived for non-industrial and industrial exposure scenarios using currently recommended default exposure parameters and toxicity values. Under MO-1, an AOI may warrant a NFA-ATT determination, or if an exposure, source, or compliance concentration detected at the AOI exceeds a MO-1 limiting RS, then the Permittee may; (1) remediate to the MO-1 limiting RS (and comply with closure/post closure requirements for MO-1), or (2) proceed with a MO-2 or MO-3 evaluation.

#### **VIII.A.3.c. Management Option 2**

The Permittee shall use Management Option 2 (MO-2) which provides for the development of soil and groundwater RS using site-specific data with specified analytical models to evaluate constituent fate and transport at the AOI. The results of this evaluation shall be used in conjunction with standard reasonable maximum exposure (RME) assumptions to identify site-specific MO-2 RS. Under MO-2, an AOI may warrant a NFA-ATT determination, or if an exposure, source, or compliance concentration detected at the AOI exceeds a MO-2 limiting RS, then the Permittee may; (1) remediate to the MO-2 limiting RS (and comply with closure/post closure requirements for MO-2), or (2) proceed with a MO-3 evaluation.

#### **VIII.A.3.d. Management Option 3**

The Permittee shall use Management Option 3 (MO-3) which provides the option of using site-specific data for the evaluation of exposure and the evaluation of environmental fate and transport at the AOI. The results of the site-specific evaluation may be to develop site-specific MO-3 RS. Under MO-3, an AOI may warrant a NFA-ATT determination, or if an exposure, source, or compliance concentration detected at the AOI exceeds a MO-3 limiting RS, then the Permittee shall; (1) remediate to the MO-3 RS, (2) conduct confirmatory sampling, and (3) comply with closure/post closure requirements for MO-3.

#### **VIII.A.4. Corrective Action for Releases Beyond Facility Boundary**

Section 3004(v) of RCRA as amended by HSWA, and State regulations promulgated as LAC 33:V.3322.C require corrective actions beyond the facility property boundary, where necessary to protect human health and the environment, unless the Permittee demonstrates that, despite the Permittee's best efforts, the Permittee was unable to obtain the necessary permission to undertake such actions. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where offsite access is denied.

#### **VIII.A.5. Financial Responsibility**

Assurances of financial responsibility for corrective action shall be provided by the Permittee as specified in the Permit following major modification for remedy selection. The Administrative Authority reserves the right to require financial assurance prior to remedy selection based upon facility compliance history, the extent and degree of contamination, financial health of the Permittee, and input from the public.

#### **VIII.A.6. Summary of Corrective Action Activities**

A summary of the corrective action activities associated with the facility is provided in Appendix 2 of this permit. AOCs and SWMUs that are currently being managed or proposed for management under a prescribed corrective action program (e.g., groundwater order, corrective action order, CERCLA) are identified in Appendix 2, Table 1 of this permit.

#### **VIII.A.7. Approval of Alternate Schedule**

The Permittee may submit a written request for an alternate schedule for a submittal deadline as presented in Appendix 1, Table 1. The request should propose a specific alternate schedule and include an explanation as to why the alternate schedule is necessary. The Administrative Authority will consider site-specific criteria in either approving or disapproving the request for an alternate schedule.

### **VIII.B. PROJECT DEVELOPMENT AND SCOPING MEETING**

#### **VIII.B.1. Notice of Intent**

The Permittee must submit to the Administrative Authority a Notice of Intent to conduct corrective action using the CAS within sixty (60) days of the effective date of this permit. The notice of intent should state the following in a concise manner:

**VIII.B.1.a.** General information regarding facility location;

**VIII.B.1.b.** General information regarding the facility's operational history;

**VIII.B.1.c.** General discussion on how the Permittee will proceed through the CAS;

**VIII.B.1.d.** Brief description of proposed performance standards for corrective action; and

**VIII.B.1.e.** Propose a date for a scoping meeting between the Permittee and the Administrative Authority to be held within sixty (60) days of the date of the Notice of Intent.

#### **VIII.B.2. Scoping Meeting**

The scoping meeting will serve as the first CAS milestone where the Permittee and the Administrative Authority identify expectations concerning CAS implementation. The length and extent of the meeting will depend on the complexity of the site. Agreements on land use, groundwater classification, the level of detail required in the conceptual site model (see Condition VIII.D) and expectations for remediation goals will be discussed during the scoping meeting(s). During the scoping meeting the Permittee will present the following information to the Administrative Authority:



**VIII.B.2.a.** A conceptual site model (if one already has been developed);

**VIII.B.2.b.** Discussions on history of corrective action at the facility, including facility investigations, risk evaluations or risk assessments, interim measure/stabilizations and final remedies implemented;

**VIII.B.2.c.** Proposed performance standards for the facility with justification, and potential risk management approaches;

**VIII.B.2.d.** Discussions on how the Permittee plans to use the CAS to meet its corrective action obligations, including permitting and compliance issues;

**VIII.B.2.e.** A Communication Strategy Plan that specifies where in the CAS process the Permittee is currently and how the Permittee will provide information about future progress at the facility to the Administrative Authority (i.e., progress reports, conference calls, routine meetings, etc.);

**VIII.B.2.f.** Site-specific concerns (i.e., sensitive environments or special subpopulations);

**VIII.B.2.g.** Need for interim measures or stabilization activities, if necessary; and

**VIII.B.2.h.** Schedule for submittal of the CAS Investigation Workplan and proposed schedule for conducting and completing CAS requirements, including public participation.

Information plans and reports that have already been developed by the Permittee during the corrective action process can be referenced during the scoping meeting. The Permittee must coordinate with the Administrative Authority in order to determine the date, time, and location of the scoping meeting.

### **VIII.C. REPORTING REQUIREMENTS**

**VIII.C.1.** The Permittee shall submit, in accordance with Condition VII.A.8, signed reports of all activities conducted pursuant to the provisions of this Permit as required by the Administrative Authority. The reporting schedule shall be determined on a case-by-case basis by the Administrative Authority. These reports shall contain, as applicable to the stage of corrective action, the information required by CAS, as well as the following:

**VIII.C.1.a.** A description of the work completed and an estimate of the percentage of work completed;

**VIII.C.1.b.** Summaries of all findings, including summaries of laboratory data;

VIII.C.1.c. Summaries of all problems or potential problems encountered during the reporting period and actions taken to rectify problems;

VIII.C.1.d. Projected work for the next reporting period;

VIII.C.1.e. Summaries of contacts pertaining to corrective action or environmental matters with representatives of the local community, public interest groups or State government during the reporting period;

VIII.C.1.f. Changes in key project personnel during the reporting period; and

VIII.C.1.g. Summaries of all changes made in implementation during the reporting period.

VIII.C.2. Copies of other reports relating to or having bearing upon the corrective action work (e.g., inspection reports, drilling logs and laboratory data) shall be made available to the Administrative Authority upon request.

VIII.C.3. In addition to the written reports as required in Condition VIII.C.1 and VIII.C.2 above, at the request of the Administrative Authority, the Permittee shall provide status review through briefings with the Administrative Authority.

VIII.C.4. The determination and approval of remedy selections, schedules of submittals and minor changes to any corrective action workplans may be made by the Administrative Authority during the scoping meeting or status review briefings as described in Condition VIII.C.3.

#### **VIII.D. SPECIFIC CONDITION – CONCEPTUAL SITE MODEL (CSM)**

No later than 120 days after the scoping meeting, the Permittee shall submit to the Administrative Authority a CSM (along with the Performance Standards detailed in Condition VIII.A.2) or an update of any CSM submitted at the scoping meeting providing background information and the current conditions at the facility. The level of detail required for the CSM will be discussed during the scoping meeting. At a minimum, the CSM must address current site conditions, land use, known and/or potential constituent source(s), routes of constituent migration, exposure media (i.e., soil, surface waters, groundwater), exposure points, points of compliance and pathways, receptors and source media to be evaluated under the RECAP. The CSM must include a completed Figure 8 (LAC 33:1.Chapter 13). The Permittee may include completed investigations, existing data, or previously submitted documents in the CSM by reference. References must include the names, dates, and brief summaries of the documents.

If a CSM has been previously developed, the scoping meeting will also provide the opportunity for the Permittee and Administrative Authority to consider and identify all data gaps in the CSM. The initial CSM shall be considered the "base document" to be prepared

and updated by the facility as new information is gathered during investigations. The CSM shall be used by the facility to make decisions regarding risk management options, ecological risk, and monitored natural attenuation determinations (RECAP Section 2.16), or technical impracticability (TI) waiver determinations, when appropriate.

The Administrative Authority reserves the right to require revisions to the CSM based upon data resulting from ongoing investigations and activities. Revisions to the CSM may also be required for newly identified SWMUs or AOCs according to Condition VIII.L of this permit (See Appendix 2, Ongoing Corrective Action) and based on new information and information not previously considered by the Administrative Authority.

The CSM shall be divided into Profiles as detailed in Conditions VIII.D.1 through 6. If the Permittee chooses to use existing data and documents in the CSM, it may not be necessary to prepare the Profiles as detailed in Conditions VIII.D.1 through 6. However, the existing documents and data must provide sufficient information and detail which corresponds to the information required by the Facility, Land Use and Exposure, Physical, Release, Ecological, and Risk Management Profiles.

#### **VIII.D.1. Facility Profile**

The Permittee shall include in the CSM a Facility Profile which shall summarize the regional location, pertinent boundary features, general facility structures, process areas, and locations of solid waste management units or other potential sources of contaminant migration from the routine and systematic releases of hazardous constituents to the environment (e.g., truck or railcar loading/unloading areas). The Permittee shall also include historical features that may be potential release areas because of past management practices. The Facility Profile shall include:

**VIII.D.1.a.** Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

**VIII.D.1.a.(1)** General geographic location;

**VIII.D.1.a.(2)** Property lines with the owners of all adjacent property clearly indicated;

**VIII.D.1.a.(3)** Facility structures, process areas and maintenance areas;

**VIII.D.1.a.(4)** Any other potential release areas shall be delineated, such as railcar loading/unloading areas or any other AOI as described in RECAP Section 2.6; and

**VIII.D.1.a.(5)** Locations of historical features that may be potential release areas or any areas of past solid and hazardous waste generation, treatment, storage or disposal activities.

**VIII.D.1.b.** The Facility Profile shall also include a description of ownership and operation of the facility.

**VIII.D.1.c.** The Permittee shall provide pertinent information for those spills that have not been assessed and reported to the Administrative Authority during facility investigations, addressed by facility spill contingency plans, or previously remediated or deemed for no further action. The information must include at minimum, approximate dates or periods of past waste spills, identification of the materials spilled, the amount spilled, the location where spilled, and a description of the response actions conducted (local, state, federal, or private party response units), including any inspection reports or technical reports generated as a result of the response.

#### **VIII.D.2. Land Use and Exposure Profile**

The Permittee shall include in the CSM a Land Use and Exposure Profile which includes surrounding land uses (industrial and non-industrial, as described in RECAP Sections 2.9.1 and 2.9.2), resource use locations (water supply wells, surface water intakes, etc.), beneficial resource determinations (groundwater classifications as described in RECAP Section 2.10), natural resources (wetlands, etc.), sensitive subpopulation types and locations (schools, hospitals, nursing homes, day care centers, etc.), applicable exposure scenarios, and applicable exposure pathways identifying the specific sources, releases, migration mechanisms, exposure media, exposure routes and receptors. The Land Use and Exposure Profile shall include:

**VIII.D.2.a.** Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

**VIII.D.2.a.(1)** Surrounding land uses, resource use locations, and natural resources/wetlands;

**VIII.D.2.a.(2)** Locations of sensitive subpopulations; and

**VIII.D.2.a.(3)** An exposure pathway flowchart which outlines sources, migration pathways, exposure media and potential receptors as depicted in Figure 8 (CMS example) of the RECAP.

### **VIII.D.3. Physical Profile**

The Permittee shall include in the CSM a Physical Profile which shall describe the factors that may affect releases, fate and transport, and receptors, including; topography, surface water features, geology, and hydrogeology. The Physical Profile shall include:

**VIII.D.3.a.** Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V.Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

**VIII.D.3.a.(1)** Topographic maps with a contour interval of five (5) or ten (10) feet, a scale of one inch to 100 feet (1:100), including hills, gradients, and surface vegetation or pavement;

**VIII.D.3.a.(2)** Surface water features including routes of all drainage ditches, waterways, direction of flow, and how they migrate to other surface water bodies such as canals and lakes;

**VIII.D.3.a.(3)** Regional geology including faulting and recharge areas, as well as local geology depicting surface features such as soil types, outcrops, faulting, and other surface features;

**VIII.D.3.a.(4)** Subsurface geology including stratigraphy, continuity (locations of facies changes, if known), faulting and other characteristics;

**VIII.D.3.a.(5)** Maps with hydrogeologic information identifying water-bearing zones, hydrologic parameters such as transmissivity, and conductivity. Also locations and thicknesses of aquitards or impermeable strata; and

**VIII.D.3.a.(6)** Locations of soil borings and production and groundwater monitoring wells, including well log information, and construction of cross-sections which correlate substrata. Wells shall be clearly labeled with ground and top of casing elevations (can be applied as an attachment).

### **VIII.D.4. Release Profile**

The Permittee shall include in the CSM a Release Profile which shall describe the known extent of contaminants in the environment, including sources, contaminants of concern (COC), areas of investigations, distribution and magnitude of known COCs with corresponding sampling locations, and results of fate and transport modeling depicting potential future extent/magnitude of COCs. The Release Profile shall include:

**VIII.D.4.a.** Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V. Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

**VIII.D.4.a.(1)** Estimations of source concentrations, exposure concentrations and compliance concentrations for each affected media as defined in Section 2.8 of RECAP;

**VIII.D.4.a.(2)** Isopleth maps depicting lateral extent and concentrations of COCs;

**VIII.D.4.a.(3)** Results of fate and transport modeling showing potential exposure concentrations and locations; and

**VIII.D.4.a.(4)** Locations of potential sources including past or present waste units or disposal areas and all SWMUs/AOCs.

**VIII.D.4.b.** Table(s) depicting the following information for each SWMU/AOC, including but not limited to: location; type of unit/disposal/release area; design features; operating practices (past and present); period of operation; age of unit/disposal/release area; general physical condition; and method of closure.

**VIII.D.4.c.** Table(s) depicting the following waste/contaminant characteristics for those areas referenced in Condition VIII.D.4.b, including but not limited to: type of waste placed in the unit (hazardous classification; quantity, chemical composition), physical and chemical characteristics (physical form, description, temperature, pH, general chemical class, molecular weight, density, boiling point, viscosity, solubility in water, solubility in solvents, cohesiveness, vapor pressure); and migration and dispersal characteristics of the waste (sorption coefficients, biodegradability, photodegradation rates, hydrolysis rates, chemical transformations).

#### **VIII.D.5. Ecological Profile**

The Permittee shall include in the CSM an Ecological Profile that shall describe the physical relationship between the developed and undeveloped portions of the facility, the use and level of disturbance of the undeveloped property, and the type of ecological receptors present in relation to completed exposure pathways. When compiling data for the Ecological Profile, current, as well as, future impacts to receptors and/or their habitats shall be considered. The Ecological Profile shall include:

**VIII.D.5.a.** A history and description of the developed property on the facility, including structures, process areas, waste management units, and property boundaries;

**VIII.D.5.b.** A history and description of the undeveloped property, including habitat type (wetland, grassy area, forest, ponds, etc.). Include a description of the primary use, degree and nature of any disturbance, along with proximity to drainage ditches, waterways and landfill areas;

**VIII.D.5.c.** A description of the site receptors in relation to habitat type, including endangered or protected species, mammals, birds, fish, etc.;

**VIII.D.5.d.** A description of the relationship between release areas and habitat areas, specifically relating chemicals of potential ecological concern (COEC) to ecological receptors;

**VIII.D.5.e.** An ecological checklist as described in Section 7.0 of RECAP. An ecological checklist (presented in Appendix C, Form 18 of the RECAP) shall be used to determine if a tier 1 (screening level) Ecological Risk Assessment (ERA) is warranted.

#### **VIII.D.6. Risk Management Profile**

The Permittee shall include in the CSM a Risk Management Profile that shall describe how each AOI at the facility will be managed for the protection of human health and the environment. The Risk Management Profile will serve as documentation of the results of the site ranking system (described in Section 2.2 of RECAP). The Risk Management Profile will also document the criteria and verify that the SO, MO-1, MO-2 or MO-3 is appropriate for application at each AOI. The Risk Management Profile shall include:

**VIII.D.6.a.** A table for tracking the management options for each AOI, and the determination made, whether an AOI is deemed for no further action at this time (NFA-ATT) or is going to use either the SO, MO-1, MO-2 or MO-3 management option.

**VIII.D.6.b.** A list of identified site-wide data gaps for further investigation.

**VIII.D.6.c.** Documentation of all interim measures which have been or are being undertaken at the facility, including under State or Federal compliance orders, other than those specified in the Permit. This documentation shall include the objectives of the interim measures and how the measure is mitigating a potential threat to human health or the environment and/or is consistent with and integrated into requirements for a long term remedial solution.

#### **VIII.E. INTERIM MEASURES**

**VIII.E.1.** If at any time during the term of this Permit, the Administrative Authority determines that a release or potential release of hazardous constituents from a SWMU/AOC poses a threat to human health and the environment, the Administrative

Authority may require interim measures. The Administrative Authority shall determine the specific measure(s) or require the Permittee to propose a measure(s). The interim measure(s) may include a permit modification, a schedule for implementation, and an Interim Measures Workplan. The Administrative Authority may modify this Permit according to LAC 33:V.321 to incorporate interim measures into the Permit. However, depending upon the nature of the interim measures, a permit modification may not be required.

**VIII.E.2.** The Permittee may propose interim measures at any time by submittal of an Interim Measures Workplan subject to the approval of the Administrative Authority.

**VIII.E.3.** The Administrative Authority shall notify the Permittee in writing of the requirement to perform interim measures and may require the submittal of an Interim Measures Workplan. The following factors will be considered by the Administrative Authority in determining the need for interim measures and the need for permit modification:

**VIII.E.3.a.** Time required to develop and implement a final remedy;

**VIII.E.3.b.** Actual and potential exposure to human and environmental receptors;

**VIII.E.3.c.** Actual and potential contamination of drinking water supplies and sensitive ecosystems;

**VIII.E.3.d.** The potential for further degradation of the medium in the absence of interim measures;

**VIII.E.3.e.** Presence of hazardous wastes in containers that may pose a threat of release;

**VIII.E.3.f.** Presence and concentration of hazardous waste including hazardous constituents in soil that has the potential to migrate to ground water or surface water;

**VIII.E.3.g.** Weather conditions that may affect the current levels of contamination;

**VIII.E.3.h.** Risks of fire, explosion, or accident; and

**VIII.E.3.i.** Other situations that may pose threats to human health and the environment.

**VIII.E.5.** Upon approval of the Interim Measures Workplan and completion of the interim measure(s) implementation, the Permittee will submit a report to the Administrative Authority describing the completed work.



**VIII.E.6.** At anytime during or after the interim measure(s), including the issuance of an NFA-ATT, the Administrative Authority may require the Permittee to submit the SWMUs/AOCs for further corrective action.

#### **VIII.F. CAS (CORRECTIVE ACTION STRATEGY) INVESTIGATION WORKPLAN**

**VIII.F.1.** The CAS Investigation Workplan that describes site investigation activities for corrective action shall be submitted to the Administrative Authority within 180 days after the scoping meeting between the Permittee and the Administrative Authority. The CAS Investigation Workplan must address releases of hazardous waste or hazardous constituents to all media, unless otherwise indicated, for those SWMUs/AOCs listed in Appendix 2, Table 1. The focus of the site investigation phase for corrective action is to collect data to fill in data gaps identified in the CSM. The corrective action investigations may be conducted in phases if warranted by site conditions, contingent upon approval by the Administrative Authority.

**VIII.F.1.a.** The CAS Investigation Workplan shall describe the management options (MO) for each AOI/release area, data quality objectives for achieving each management option, and proposals for release characterizations (sampling and analysis/quality assurance plans) to support the data quality objectives (DQOs). (DQOs are determined based on the end use of the data to be collected, and the DQO development process should be integrated into project planning and refined throughout the CAS implementation. DQOs shall be used to 1) ensure that environmental data are scientifically valid, defensible, and of an appropriate level of quality given the intended use, and 2) expedite site investigations. The CAS Investigation Workplan is required to have DQOs that are developed to support the performance standard for each release.) The CAS Investigation Workplan shall detail all proposed activities and procedures to be conducted at the facility, the schedule for implementing and completing such investigations, the qualifications of personnel performing or directing the investigations, including contractor personnel, and the overall management of the site investigations. The scope of work for the site investigation can be found in RECAP Appendix B.

**VIII.F.1.b.** The CAS Investigation Workplan shall describe sampling, data collection quality assurance, data management procedures (including formats for documenting and tracking data and other results of investigations) and health and safety procedures.

**VIII.F.1.c.** Development of the CAS Investigation Workplan and reporting of data shall be consistent with the latest version of the following EPA and State guidance documents or the equivalent thereof:

**VIII.F.1.c.(1)** Guidance for the Data Quality Assessment, Practical Methods for Data Analysis. QA97 Version EPA QA/G-9. January 1998;

VIII.F.1.c.(2) Guidance for the Data Quality Objectives Process. EPA QA/G-4. September 1994;

VIII.F.1.c.(3) Data Quality Objectives Remedial Response Activities. EPA/540/G87-003. March 1987;

VIII.F.1.c.(4) Guidance on Quality Assurance Project Plans. EPA QA/G-5. February 1998;

VIII.F.1.c.(5) Interim EPA Data Requirements for Quality Assurance Project Plans. EPA Region 6, Office of Quality Assurance. May 1994;

VIII.F.1.c.(6) 29 CFR 1910.120 (b) for the elements to Health and Safety plans;

VIII.F.1.c.(7) RCRA Groundwater Monitoring: Draft Technical Guidance EPA/530-R-93-001 November 1992;

VIII.F.1.c.(8) Test Methods for Evaluating Solid Waste, Physical/Chemical Methods; SW-846, 3<sup>rd</sup> Edition. November 1992, with revisions;

VIII.F.1.c.(9) **The LDEQ Handbook - Construction of Geotechnical Boreholes and Groundwater Monitoring Systems," prepared by the LDEQ and the Louisiana Department of Transportation and Development.** This document is printed by and available from the Louisiana Department of Transportation and Development, Water Resources Section, P. O. Box 94245, Baton Rouge, Louisiana 70804-9245; and

VIII.F.1.c.(10) The LAC 33:I.Chapter 13 and Louisiana Department of Environmental Quality Risk Evaluation/Corrective Action Program (RECAP).

VIII.F.2. After the Permittee submits the CAS Investigation Workplan; the Administrative Authority will approve, disapprove, or otherwise modify the CAS Investigation Workplan in writing. All approved workplans become enforceable components of this Permit.

In event of disapproval (in whole or in part) of the workplan, the Administrative Authority shall specify deficiencies in writing. The Permittee shall modify the CAS Investigation Workplan to correct these within the time frame specified in the notification of disapproval by the Administrative Authority. The modified workplan shall be submitted in writing to the Administrative Authority for review. Should the Permittee take exception to all or part of the disapproval, the Permittee shall submit a written statement of the ground for the exception within fourteen (14) days of receipt of the disapproval.

**VIII.F.3.** The Administrative Authority shall review for approval, as part of the CAS Investigation Workplan or as a new workplan, any plans developed pursuant to Condition VIII.L addressing further investigations of newly-identified SWMUs/AOCs, or Condition VIII.M addressing new releases from previously-identified SWMUs/AOCs.

#### **VIII.G. IMPLEMENTATION OF SITE INVESTIGATION ACTIVITIES UNDER CAS**

No later than fourteen (14) days after the Permittee has received written approval from the Administrative Authority for the CAS Investigation Workplan, the Permittee shall implement the site investigation activities according to the schedules and in accordance with the approved CAS Investigation Workplan and the following:

**VIII.G.1.** The Permittee shall notify the Administrative Authority at least 10 working days prior to any field sampling, field-testing, or field monitoring activity required by this Permit to give LDEQ personnel the opportunity to observe investigation procedures and/or split samples.

**VIII.G.2.** Deviations from the approved CAS Investigation Workplan, which are necessary during implementation, must be approved by the Administrative Authority and fully documented and described in the progress reports (Condition VIII.C), RECAP Report (Condition VIII.H) and the final Risk Management Plan (Condition VIII.J).

#### **VIII.H. RECAP REPORT**

Within ninety (90) days after completion of the site investigation the Permittee shall submit a RECAP Report to the Administrative Authority for approval. The RECAP Report shall document the results of the site investigation activities, and the evaluation of the impacts from releases. The Administrative Authority will review and evaluate the report and provide the Permittee with written notification of the report's approval or a notice of deficiency. If the Administrative Authority determines the RECAP Report does not fully meet the objectives stated in the CAS Investigation Workplan (Permit Condition VIII.F), the Administrative Authority shall notify the Permittee in writing of the report's deficiencies, and specify a due date for submittal of a revised Final Report to the Administrative Authority.

**VIII.H.1.** The Permittee shall screen site-specific data using the appropriate RECAP standard (RS) for each AOI (depending on the MO), evaluate impacts from releases with exposure scenario evaluations, and update the Risk Management Profile of the CSM.

**VIII.H.2.** The report shall include, but not be limited to, the following:

**VIII.H.2.a.** Documentation of site investigation activities and results;

**VIII.H.2.b.** Evaluation of exposure scenarios to document impacts from releases;

**VIII.H.2.c.** Deviations from the CAS Investigation Workplan;

**VIII.H.2.d.** Results of screening activities using RECAP standards (RS), including SO, MO-1, MO-2, or MO-3 RS for each media;

**VIII.H.2.e.** The revised CSM with updated profiles which incorporate investigation and screening results; and

**VIII.H.2.f.** Proposed revisions to performance standards based on new information (e.g., change in land use, difference in expected receptors and/or exposure, or other differences in site conditions), if warranted.

### **VIII.I. REMEDIAL ALTERNATIVES STUDY**

Upon completion and approval of the RECAP Report, the Permittee shall proceed with the evaluation of remedial alternatives to complete corrective action for each AOI according to the performance standards described in Condition VIII.A.2. The remedial alternatives shall be submitted to the Administrative Authority in the Remedial Alternatives Study (RAS) within ninety (90) days of the Administrative Authority's approval of the RECAP Report. In the Remedial Alternatives Study, the Permittee shall identify and evaluate various potential remedies that would meet the performance-based corrective action objectives and propose one or more specific remedies based on an evaluation of applicable data and available corrective action technologies. The RAS shall be prepared in a manner that addresses the extent and nature of the contamination at the facility.

**VIII.I.1.** The Permittee shall evaluate remedies for each AOI that shall:

**VIII.I.1.a.** attain compliance with corrective action objectives for releases of hazardous waste and/or hazardous constituents, as established in the Conceptual Site Model or in later investigations approved by the Administrative Authority;

**VIII.I.1.b.** control sources of releases;

**VIII.I.1.c.** meet acceptable waste management requirements;

**VIII.I.1.d.** protect human health and the environment; and

**VIII.I.1.e.** meet applicable statutory and regulatory requirements (as noted in Condition VIII.A.2.b).

**VIII.I.2.** The Permittee shall evaluate the use of presumptive remedies and innovative technologies to achieve the appropriate remedial performance standards for each AOI.

**VIII.I.3.** The Permittee shall review the current interim measures/ stabilization activities to evaluate if these measures meet all the criteria for final remedy.

**VIII.I.4.** If under certain site-specific conditions, or when it is not technically or economically feasible to attain the corrective action objectives, the Permittee may propose to use institutional controls to supplement treatment or containment-based remedial actions upon approval of the Administrative Authority (Section 2.15 of RECAP).

**VIII.I.5.** The RAS shall at a minimum include:

**VIII.I.5.a.** An evaluation of the performance reliability, ease of implementation, and the potential impacts of the potential remedies;

**VIII.I.5.b.** An assessment of the effectiveness of potential remedies in achieving adequate control of sources and meeting remedial performance standards;

**VIII.I.5.d.** An assessment of the costs of implementation for potential remedies;

**VIII.I.5.e.** An assessment of the time required to begin and complete the remedy;

**VIII.I.5.f.** An explanation of the rationale for the remedy proposed for each AOI or group of AOIs; and

**VIII.I.5.g.** An assessment of institutional requirements (e.g., state permit requirements that may impact remedy implementation).

**VIII.I.6.** The Administrative Authority will review and evaluate the RAS and provide the Permittee with written notification of the study's approval or a notice of deficiency. If the Administrative Authority determines the RAS does not fully meet the requirements detailed in Conditions VIII.I.1 through VIII.I.5, the Administrative Authority shall notify the Permittee in writing of the RAS's deficiencies, and specify a due date for submittal of a revised RAS to the Administrative Authority. In addition, the Administrative Authority may require the Permittee to evaluate additional remedies or particular elements of one or more proposed remedies.

## **VIII.J. RISK MANAGEMENT PLAN**

Within ninety (90) days of the Administrative Authority's approval of the RAS, the remedy/remedies proposed for selection shall be documented and submitted in the Risk Management Plan. The Permittee shall propose corrective action remedies in accordance with Chapter IV of the RCRA Corrective Action Plan (Final), May 1994, OSWER Directive 9902.3-2A or as directed by the Administrative Authority.

**VIII.J.1. The Risk Management Plan shall at a minimum include:**

**VIII.J.1.a.** A summary of the remedial alternatives for each AOI and the rationale used for remedy selection;

**VIII.J.1.b.** The final CSM with proposed remedies, including locations of AOIs addressed by a risk management activity, COC concentrations that represent the long-term fate and transport of residual COCs and the exposure pathways affected by the risk management activity;

**VIII.J.1.c.** Cost estimates and implementation schedules for proposed final remedies;

**VIII.J.1.d.** Proposed remedy design and implementation precautions, including special technical problems, additional engineering data required, permits and regulatory requirements, property access, easements and right-of-way requirements, special health and safety requirements, and community relations activities;

**VIII.J.1.e.** Remedy performance criteria and monitoring:

The Permittee shall identify specific criteria (such as land use changes, fate and transport model verification and constructed remedy performance) that will be evaluated to demonstrate that the risk management activity implemented will remain protective. A schedule for periodic performance review (such as monitoring data summaries, including graphical and statistical analyses) shall be established to demonstrate that the implemented activities are consistently achieving and maintaining desired results. Further, a mechanism shall be established to re-evaluate risk management activities in the event the implemented action does not achieve and maintain the performance standards;

**VIII.J.1.f.** Contingency plans; and

**VIII.J.1.g.** Description and schedules for performance reviews.

**VIII.J.2.** After the Permittee submits the Risk Management Plan, the Administrative Authority will review and evaluate the plan and subsequently either inform the Permittee in writing that the plan is acceptable for public review or issue a notice of deficiency.

**VIII.J.3.** If the Administrative Authority determines the Risk Management Plan does not fully meet the remedial objectives, the Administrative Authority shall notify the Permittee in writing of the plan's deficiencies and specify a due date for submittal of a revised Final Risk Management Plan. In addition, the Administrative Authority may require the Permittee to evaluate additional remedies or particular elements of one or more proposed remedies.

**VIII.J.4.** After the Administrative Authority has determined the Risk Management Plan is acceptable for public review, the Administrative Authority shall inform the Permittee in writing and instruct the Permittee to submit the plan as a Class 3 permit modification request in accordance with the requirements of LAC 33:V.321.C.3.

**VIII.J.5.** After conclusion of a sixty (60) day comment period, the Administrative Authority will either grant or deny the Class 3 permit modification request. In addition the Administrative Authority must consider and respond to all significant comments received during the sixty (60) day comment period.

**VIII.J.6.** If the Class 3 Modification request is granted, the Administrative Authority shall prepare a draft permit incorporating the proposed changes in accordance with LAC 33:V.703.C and solicit public comment on the draft permit modification according to Condition VIII.N.3 of this permit.

**VIII.J.7.** If, after considering all public comments, the Administrative Authority determines that the Risk Management Plan is adequate and complete, the Administrative Authority will issue a public notice for final approval the Class 3 permit modification. The resultant modified permit will include schedules for remedy implementation as well as financial assurance provisions as required by Condition VIII.A.5 of this permit.

#### **VIII.K. DETERMINATION OF NO FURTHER ACTION**

##### **VIII.K.1. NFA-ATT DETERMINATIONS FOR SPECIFIC SWMUs/AOCs**

**VIII.K.1.a.** Based on the results of the site investigations, screening, risk evaluations and risk management activities, the Permittee may request a NFA-ATT determination for a specific SWMU/AOC by submittal of a Class 1<sup>1</sup> permit modification (<sup>1</sup> requiring Administrative Authority approval) request under LAC 33:V.321.C.1. The NFA-ATT request must contain information demonstrating that there are no releases of hazardous constituents from a particular SWMU/AOC that pose a threat to human health and/or the environment.

The basis for the determination of NFA-ATT shall follow the guidelines as described in the RECAP (Section 1.2.1 of RECAP) for each AOI, depending on the MO used.

**VIII.K.1.b.** If, based upon review of the Permittee's request for a permit modification, the results of the site investigations, and other information the Administrative Authority determines that releases or suspected releases from an individual SWMU/AOC which were investigated either are non-existent or do not pose a threat to human health and/or the environment, the Administrative Authority may grant the requested modification.

**VIII.K.1.c.** In accordance with LAC 33:V.321.C.1.a.ii, the Permittee must notify the facility mailing list within ninety (90) days of the Administrative Authority's approval of the Class 1<sup>1</sup> permit modification request.

#### **VIII.K.2. FACILITY-WIDE NFA-ATT DETERMINATION**

**VIII.K.2.a.** Upon the completion of all activities specified in the Risk Management Plan and after all SWMUs and AOCs at the facility have been remediated according to the standards dictated by the selected RECAP MO, the Permittee shall submit a summary report supporting a determination of NFA-ATT on a facility-wide basis.

**VIII.K.2.b.** The summary report must include a historical narrative for each SWMU/AOC at the site that includes a summary of the investigation, sampling & analysis, remedial, and confirmatory sampling activities leading to the NFA-ATT request. The basis for the determination of NFA-ATT shall follow the guidelines as described in the RECAP (Section 1.2.1 of RECAP) for each AOI, depending on the MO used. The facility-wide NFA-ATT determination must consider any newly-identified SWMUs/AOCs discovered after submittal of the Risk Management Plan.

**VIII.K.2.c.** The Administrative Authority will review and evaluate the summary report and subsequently either inform the Permittee in writing that the report is acceptable for public review or issue a notice of deficiency.

**VIII.K.2.d.** If the Administrative Authority determines the summary report does not fully demonstrate that all remedial objectives have been satisfied, the Administrative Authority shall notify the Permittee in writing of the summary report's deficiencies and specify a due date for submittal of a revised summary report.

**VIII.K.2.e.** After the Administrative Authority has determined the facility-wide NFA-ATT summary report is acceptable for public review, the Administrative Authority shall inform the Permittee in writing and instruct the Permittee to submit the summary report as a Class 3 permit modification request in accordance with the requirements of LAC 33:V.321.C.3.

**VIII.K.2.f.** After conclusion of a sixty (60) day comment period, the Administrative Authority will either grant or deny the Class 3 permit modification request. In addition the Administrative Authority must consider and respond to all significant comments received during the sixty (60) day comment period.



**VIII.K.2.g.** If, based upon review of the Permittee's Class 3 permit modification request, the results of the site investigations, confirmatory sampling, and other pertinent information, the Administrative Authority determines that all SWMUs and AOCs have been remediated to the selected MO and no further action at the facility is warranted, the Administrative Authority will grant the modification request.

**VIII.K.2.h.** If the Class 3 Modification request is granted, the Administrative Authority shall prepare a draft permit incorporating the proposed changes in accordance with LAC 33:V.703.C and solicit public comment on the draft permit modification according to Condition VIII.N.4 of this permit.

**VIII.K.2.i.** If, after considering all public comments, the Administrative Authority determines that all activities specified in the Risk Management Plan have been completed and that all SWMUs and AOCs have been remediated to the selected MO, the Class 3 permit modification for facility-wide NFA-ATT will receive final approval. The CAS permit conditions will remain a part of the modified permit in the event that the remedial actions taken fail to maintain the established performance standard and to address any SWMUs/AOCs discovered at a later date.

### **VIII.K.3. CONTINUED MONITORING**

If necessary to protect human health and/or the environment, a determination of NFA-ATT shall not preclude the Administrative Authority from requiring continued monitoring of air, soil, groundwater, or surface water, when site-specific circumstances indicate that releases of hazardous waste or hazardous constituents are likely to occur.

### **VIII.K.4. ADDITIONAL INVESTIGATIONS**

A determination of NFA-ATT shall not preclude the Administrative Authority from requiring further investigations, studies, or remediation at a later date, if new information or subsequent analysis indicates a release or likelihood of a release from a SWMU/AOC at the facility that is likely to pose a threat to human health and/or the environment. In such a case, the Administrative Authority shall initiate a modification to the Permit according to LAC 33:V.321.

## **VIII.L. NOTIFICATION REQUIREMENTS FOR AND ASSESSMENT OF NEWLY-IDENTIFIED SWMUs AND POTENTIAL AOCs**

**VIII.L.1.** The Permittee shall notify the Administrative Authority, in writing, of any newly-identified SWMUs and potential AOCs (i.e., a unit or area not specifically identified during previous corrective action assessments, RFA, etc.), discovered in the course of ground water monitoring, field investigations, environmental audits, or other means, no later than thirty (30) days after discovery. The Permittee shall also notify the Administrative Authority of any newly-constructed land-based SWMUs

(including but not limited to, surface impoundments, waste piles, landfills, land treatment units) and newly-constructed SWMUs where any release of hazardous constituents may be difficult to identify (e.g., underground storage tanks) no later than thirty (30) days after construction. The notification shall include the following items, to the extent available:

**VIII.L.1.a.** The location of the newly-identified SWMU or potential AOC on the topographic map required under LAC 33:V.517.B. Indicate all existing units (in relation to other SWMUs/AOCs);

**VIII.L.1.b.** The type and function of the unit;

**VIII.L.1.c.** The general dimensions, capacities, and structural description of the unit (supply any available drawings);

**VIII.L.1.d.** The period during which the unit was operated;

**VIII.L.1.e.** The specifics, to the extent available, on all wastes that have been or are being managed at the SWMU or potential AOC; and

**VIII.L.1.f.** Results of any sampling and analysis required for the purpose of determining whether releases of hazardous waste including hazardous constituents have occurred, are occurring, or are likely to occur from the SWMU/AOC.

**VIII.L.2.** Based on the information provided in the notification, the Administrative Authority will determine whether or not the area is a newly-identified SWMU or AOC. If the area is determined to be a newly-identified SWMU or AOC, the Administrative Authority will inform the Permittee in writing and request that the Permittee submit a Class 1<sup>1</sup> permit modification request under LAC 33:V.321.C.1 to add the newly-identified SWMU/AOC to Appendix 2, Table 1 of this permit.

Further, the Administrative Authority will determine the need for further investigations or corrective measures at any newly identified SWMU or AOC. If the Administrative Authority determines that such investigations are needed, the Administrative Authority may require the Permittee to prepare a plan for such investigations. The plan for investigation of SWMU or AOC will be reviewed for approval as part of the current CAS Investigation Workplan or a new CAS Investigation Workplan. The results of the investigation of any newly-discovered SWMU/AOC shall be incorporated into the CSM.

#### **VIII.M. NOTIFICATION REQUIREMENTS FOR NEWLY-DISCOVERED RELEASES AT A SWMU OR AOC**

The Permittee shall notify the Administrative Authority of any release(s) from a SWMU or AOC of hazardous waste or hazardous constituents discovered during the course of ground water monitoring, field investigation, environmental auditing, or other means. The notification must be in accordance with the procedures specified in Conditions II.E.16 through II.E.20 of this permit and based upon the nature, extent, and severity of the release. Such newly-discovered releases may be from newly-identified SWMUs or AOCs, newly-constructed SWMUs, or from SWMUs or AOCs for which, based on the findings of the CSM, completed RECAP Report, or investigation of an AOC, the Administrative Authority had previously determined no further investigation was necessary. The notification shall include information concerning actual and/or potential impacts beyond the facility boundary and on human health and the environment, if available at the time of the notification.

The Administrative Authority may require further investigation and/or interim measures for the newly-identified release(s), and may require the Permittee to prepare a plan for the investigation and/or interim measure. The plan will be reviewed for approval as part of the CAS Investigation Workplan or a new CAS Investigation Workplan. The Permit will be modified to incorporate the investigation, according to the Class 1<sup>1</sup> permit modification (<sup>1</sup>requiring Administrative Authority approval) procedures under LAC 33:V.321. The results of the investigation of any newly-identified release(s) shall be incorporated into the CSM.

#### **VIII.N. PUBLIC PARTICIPATION REQUIREMENTS**

Public participation is an essential element in the implementation of any corrective action program at the facility. The CAS promotes the early and continued involvement of stakeholders in site remediation activity during permit issuance, renewal, or modification. The public is invited to review and comment on the corrective action requirements contained in any draft permitting decisions or draft permit modification documents and the associated plans and reports submitted by the Permittee. The Administrative Authority reserves the right to require more extensive public participation requirements based upon site-specific conditions and other relevant factors (e.g., compliance history, potential offsite impact, community interest, etc.). At a minimum, the public participation requirements shall include the following.

##### **VIII.N.1. NFA-ATT Determinations for Specific SWMUs/AOCs**

Based on the results of the site investigations, screening, risk evaluations and risk management activities, the Permittee may request a NFA-ATT determination for a specific SWMU/AOC by submittal of a Class 1<sup>1</sup> permit modification request (<sup>1</sup>requiring Administrative Authority approval) under LAC 33:V.321.C.1. The Permittee must notify the facility mailing list within 90 days of the Administrative Authority's approval of the Class 1<sup>1</sup> permit modification request, in accordance with LAC 33:V.321.C.1.a.ii and Condition VIII.K.1.c of this permit.

#### **VIII.N.2. Draft Permitting Decision**

The public may review and comment on the terms and conditions of the CAS during the public notice and comment period of the draft permitting decision. The Administrative Authority shall issue public notice upon preparation of the draft permitting decision in accordance with LAC 33:V.715. During the forty-five (45) day public comment period, the Administrative Authority will accept public comments on the draft permitting decision. At the end of the public comment period, the Administrative Authority will consider and address all public comments and make any necessary revisions to the draft permitting decision. After addressing all public comments, the Administrative Authority will issue a public notice for issuance of the final permitting decision. The final permitting decision will include a "Responsiveness Summary" detailing all comments received on the draft permitting decision and the actions taken (if necessary) to correct the draft before issuance of the final permitting decision.

#### **VIII.N.3. Final Remedy Selection**

The public may review and comment on the terms and conditions of the Risk Management Plan as described in Conditions VIII.J.4 through VIII.J.7 of this permit. If after addressing all public comments the Administrative Authority determines that the Risk Management Plan is satisfactory, the Administrative Authority will prepare a draft permit modification document in accordance with LAC 33:V.703.C.

The draft permit modification document will include a "Basis of Decision". The "Basis of Decision" will identify the proposed remedy for corrective action at the site and the reasons for its selection, describe all other remedies that were considered, and solicit for public review and comments on the Risk Management Plan included in the draft permit modification document.

After addressing all public comments, the Administrative Authority will issue a public notice for issuance of the final permit modification. The final permit modification will include a "Responsiveness Summary" detailing all comments received on the draft permit modification and the actions taken (if necessary) to correct the draft before issuance of the final permit modification.

#### **VIII.N.4. Facility-Wide NFA-ATT**

Upon the completion of all activities specified in the Risk Management Plan and after all facility remedial objectives have been met, the Permittee may submit a summary report for a determination of NFA-ATT on a facility-wide basis in accordance with Condition VIII.K.2 of this permit. The public may review and comment on the summary report as described in Condition VIII.K.2.b. If after addressing all public comments the Administrative Authority determines that all SWMUs and AOCs have been remediated to the selected MO and no further action at the facility is warranted, the Administrative Authority will prepare a draft permit modification document in accordance with LAC 33:V.703.C.

The draft permit modification document will include a "Basis of Decision". The "Basis of Decision" will provide a summary detailing contamination sources, site investigations, the MO selected for the facility, facility remedial standards, remedial actions, and sampling results demonstrating that the facility remedial standards have been achieved.

After addressing all public comments, the Administrative Authority will issue a public notice for issuance of the final permit modification. The final permit modification will include a "Responsiveness Summary" detailing all comments received on the draft permit modification and the actions taken (if necessary) to correct the draft before issuance of the final permit modification.

## APPENDIX 1

**Table 1: Corrective Action Strategy Notification and Reporting Requirements**

Below is a summary of the major notifications and reports that may be required by the Administrative Authority under the Corrective Action Strategy of this Permit in the event of releases requiring RCRA corrective action. The Administrative Authority will notify the Permittee of the notification and reporting requirements during the scoping meeting or another applicable stage of the corrective action process.

ACTION	DUE DATE
Submit Notice of Intent to request use of the CAS to the Administrative Authority for review and comment (Condition VIII.B.1)	Within sixty (60) days of the effective date of this permit (if facility corrective action is required)
CAS Scoping Meeting held between facility and Administrative Authority (Condition VIII.B.2)	Within sixty (60) days of submittal of the Notice of Intent
Submit Progress Reports on all activities to the Administrative Authority (Condition VIII.C.1)	Schedule to be determined by the Administrative Authority on a case-by-case basis
Make available other reports relating to corrective action to the Administrative Authority (Condition VIII.C.2)	Upon request of the Administrative Authority
Provide briefings to the Administrative Authority (Condition VIII.C.3)	As necessary and upon request by the Administrative Authority
Submit Conceptual Site Model (CSM) (Condition VIII.D) and facility Performance Standards (Condition VIII.A.2) to the Administrative Authority	Within one-hundred and twenty (120) days after the scoping meeting
Perform Interim Measures (Condition VIII.E)	As determined by the Administrative Authority on a case by case basis
Submit Corrective Action Strategy (CAS) Workplan for the facility investigation to the Administrative Authority (Condition VIII.F)	Within one-hundred and eighty (180) days after the CAS Scoping Meeting
Implement site investigation activities under CAS Investigation Workplan according to approved schedule (Condition VIII.G)	Within fourteen (14) days of receipt of approval by the Administrative Authority
Submit RECAP Report to the Administrative Authority (Condition VIII.H)	Within ninety (90) days of completion of the site investigation
Submittal of Remedial Alternatives Study (RAS) to the Administrative Authority (Condition VIII.I)	Within ninety (90) days of completion of approval of the RECAP Report by the Administrative Authority
Submit Risk Management Plan to the Administrative Authority	Within ninety (90) days of approval of the RAS by the Administrative Authority
Submit requests for unit specific and facility-wide NFA-ATT determinations to the Administrative Authority	As necessary

---

Authority (Condition VIII.K)

---

Notification of newly-identified SWMUs and Thirty (30) days after discovery  
potential AOCs (Condition VIII.L)

---

Notification of newly-discovered releases According to the requirements of Conditions  
(Condition VIII.M) II.E.16 through II.E.20 of this permit

---

## **APPENDIX 2: SUMMARY OF CORRECTIVE ACTION ACTIVITIES**

The intent of Appendix 2 is to provide an overview of the history and current status of the corrective action process at the site at the time of issuance of the final permit and may not necessarily provide a definitive regulatory determination for a particular SWMU or AOC. The classification of an individual SWMU or AOC is subject to change by the Administrative Authority based on future geological/hydrogeological conditions and future available information available to the Administrative Authority.

A RCRA Facility Assessment (RFA), dated July 1987, was prepared for EPA Region VI by A.T. Kearney, Inc. The RFA identified 63 SWMUs and 3 AOCs. Additionally, two RFA Addendums, dated February 22, 1991 and April 19, 1993, respectively, were prepared for the Permittee by EPA Region VI. These Addendums identified 18 additional SWMUs and 5 additional AOCs. The following SWMUs and AOCs required investigation under the RCRA Facility Investigation (RFI) Workplan dated February 24, 1996 approved by LDEQ in correspondence dated January 6, 1999:

The SWMUs and AOCs requiring investigation have been grouped into eight areas based on location, type of constituents and potential release mechanism, common remedial action performed or anticipated, or other source characteristics. The groundwater contamination in each of these areas is being remediated through an ongoing recovery system.

### **Area 1 - Former Hydrocarbon Production Area**

- SWMU #8,9 – Storage Tanks T-83/T-84
- SWMU #23 – Hydrocarbon Area Process Sewer and Sumps
- SWMU #25 – T-1 Impoundment (Neutralization Basin and Ditch, Shell Pond)
- SWMU #67/AOC F – Rail Car Area Buried Hydrocarbon Tank (Duplicate of AOC F-Underground Storage Tank Area)
- SWMU #68 – R & D Settling Basin
- SWMU #74 – Tank D-19
- SWMU #77 – Per-Tri Production Tanks
- AOC B – Soils of the Hydrocarbon Tank Area
- AOC E – EDC Product Storage Tank

### **Area 2 - Closed Facilities**

#### D-1 Landfill

- SWMU #24 – D-1 Landfill (East Pond)

#### D-2 Landfill

- SWMU #28 – T-2 Impoundment (Neutralization Ditch, Diversion Canal, Old and New)
- SWMU #44 – PVC Wastewater Settling Basin
- SWMU #45 – Dewatering Pond
- SWMU #46 – Arm of the Mannheim Basin
- SWMU #49 – T-3 Impoundment (Trace Land Settling Basin, and Wastewater Treatment Basin)
- SWMU#50 – T-4 Impoundment (Mannheim Settling Basin, Lake Mannheim)



- SWMU #55 – D-2 Landfill (West Pond)

#### D-3 Landfill

- SWMU 56 – D-3 Landfill (Spoils Pond) (Duplicate of SWMU 72)
- SWMU 72 – Waste Settling Basin (also SWMU 56)

#### **Area 3 - Former Sandbeds**

- SWMU 52 – Sandbed Filter (T-6)
- SWMU 53 – Sandbed Filter (T-7)
- SWMU 54 – Sandbed Filter (T-8)

#### **Area 4 - Lindane Area**

- SWMU 64- BHC(Lindane) Disposal Area

#### **Area 5 - Red Mud Area**

- SWMU 65 – Bauxite Mud Lake (Red Mud Area.)
- AOC D – Pipeline Excavation Area

#### **Area 6 - Alkyl Lead Production Area**

- SWMU 34 – Alkyl Lead Area Wastewater Ditch and Sumps
- SWMU 35 – Tank Car Wash House
- SWMU 42 – PVC Area Process Sewer and Sumps
- SWMU 66 – FEE Area Sewer and Ditch

#### **Area 7 - Miscellaneous Areas**

- SWMU 5 – R & D Wastewater Sump
- SWMU 47 – Fluid Car Wash
- SWMU 57/71 – Beryllium Burial Site (Duplicate of SWMU 71 – D-5 Landfill)
- SWMU 58 – Tank Car Burn Area
- SWMU 61 – Demolition Debris Landfill
- SWMU 69 – QC Lab Sump and Sewer
- SWMU 70 – D-4 Landfill

#### **Area 8 – Landfill D-3/Impoundment T-5 Interface Area**

- SWMU 51 – T-5(North Pond, North Lagoon)
- AOC G – D-3/T-5 Interface

In addition to the RFI, a Site Investigation Report (July 1999) and Investigation of Subsurface Structures Report (March 2000) were submitted to the LDEQ as requirements of the Post-Closure Permit.

On August 26, 2003, LDEQ issued a Consolidated Compliance Order and Potential Penalty (HE-CN-02-0305) for several groundwater issues including failure to operate 16 recovery wells and to install additional delineation assessment monitoring wells.

## **AREA 1: FORMER HYDROCARBON PRODUCTION AREA**

The following primary CoC's have been detected in soil and/or groundwater:

- EDC
- Trichloroethylene
- Perchloroethylene

### **SWMUs 8 and 9 - Storage Tanks T-83/T-84**

Contamination at SWMUs 8 and 9 is due to the former storage tanks T-83 and T-84. These were two vertical carbon steel tanks with 42,000 gallons capacity in each. T-83 and 84 had been used to phase-separate chlorinated hydrocarbons from recovered groundwater.

### **SWMU 23 – Hydrocarbon Area Process Sewer and Sumps**

These sewers and sumps had been used to convey wastewater from the Albemarle R&D area and numerous production units to the T-1 Neutralization Basin. The wastewater directed had been acidic and/or containing chlorinated hydrocarbons.

### **SWMU 25 – T-1 Impoundment (Neutralization Basin and Ditch, Shell Pond)**

This is the former unlined T-1 surface impoundment. It had been used for process hazardous waste until 1985 and was closed in 1989. The T-1 Impoundment's function was to neutralize by-product acid that contained hydrocarbons. The impoundment had also received stripped water from the groundwater recovery system, plant runoff, and wastewater R&D area.

### **SWMU 67/AOC F – Rail Car Area Buried Hydrocarbon Tank**

The Rail Car Area Buried hydrocarbon Tank was a single walled tank with no secondary containment. This tank was approximately 3 feet below grade and held 200 gallons of wastes that accumulated on drip pans during rail tank car loading. The loading area was located adjacent to the buried tank behind the office buildings on the south side of the property.

### **SWMU 68 – R & D Settling Basin**

This basin had been used originally to handle waters from the old hydrocarbon cooling tower and later, the basin wastewaters from the R & D facility. Following the dismantling of the cooling tower, the basin was approximately 150 ft x 50 ft x 12 ft deep. It was basically an in-ground concrete tank, with walls 12 inches thick.

### **SWMU 74 – Tank D-19**

The former Tank D-19 was used in the production of EDC from the mid 1940s to mid 1980s. It was dismantled and removed in the mid 1980s.

### **SWMU 77 – Per/Tri Production Tanks**

The former Per-Tri Production Tanks had been used to store inventory of Per & Tri Finished Products. Contamination at this SWMU has been associated with an operating procedure that had not been revised to prevent the discharge of organics until the 1970s. The tanks were dismantled and removed in the mid 1980s.

### **AOC B – Soils of the Hydrocarbon Tank Area**

This designation concerned the soils in the Hydrocarbon Area. Extensive soil contamination had occurred from past waste management activities and product spills in this area. The wastes consist primarily of chlorinated hydrocarbon products.

### **AOC E – EDC Product Storage Tank**

This area of concern was located west of the Per-Tri tanks (SWMU 77) and was an above ground tank used to store finished product. The tank was removed during the 1980s.

A brief corrective action summary for Area 1 is as follows:

April 1998 – An RFI work plan addendum is submitted to LDEQ.

January, 6, 1999 – LDEQ approves the RFI Workplan for Area 1.

– The Post-Closure Permit is modified to include guidelines for Groundwater Monitoring.

July 1999 – Soil investigations are conducted. The results lead Ethyl to contend that no impact to soil has occurred in Area 1.

December 1999 – RFI report is submitted to LDEQ. Facility recommends the continuation of their in-place Groundwater Monitoring and Groundwater Corrective Action.

### **AREA 2: CLOSED FACILITIES**

The following primary CoC's have been detected in soil and/or groundwater:

- Lead
- Chlorinated hydrocarbons

### **SWMU 24 – D-1 Landfill**

Also known as the D-1 Landfill, this unit had been used to receive listed NPDES wastewater solids (D005, D008, and P110) from sandbed filters. The landfill was lined with natural clay and capped with a RCRA-compliant clay cap and hypalon liner.

### **SWMU 55 - D-2 Landfill**

This was a RCRA-regulated Landfill with a surface area of approximately 162,000 square feet and a depth of 17 feet. The unit had been used to dispose of sludges from the sandbed filters. Landfill D-2 was closed as part of the sitewide closure of all remaining RCRA units in 1990-1991.

### **SWMU 56/72 - D-3 Landfill**

This unit was a RCRA-regulated Landfill with a surface area of 64,000 square feet. The landfill had been used to receive sludges from various sources and was lined with a hypalon liner. D-3 stopped receiving wastes in 1981. Closure of D-3 incorporated a RCRA-compliant cap.

### **SWMUs 28, 44, 45, 46, 49, and 50**

Each one of the below-named facilities had been used for the disposal of various wastes throughout the site, but all of the units were eventually incorporated into the D-2 Landfill closure. This closure was completed in 1991.

These units, respectively, have the following names:

- T-2 Impoundment (Neutralization Ditch, Diversion Canal, Old and New)
- PVC Wastewater Settling Basin
- Dewatering Pond
- Arm of the Mannheim Basin
- T-3 Impoundment (Trace Land Settling Basin, and Wastewater Treatment Basin)
- T-4 Impoundment (Mannheim Settling Basin, Lake Mannheim)

A brief corrective action summary for Area 2 is as follows:

May 1996 – Soil sampling is performed in accordance with Condition II.E.21.c. of the Post-Closure Permit. The results give lead concentrations that call for additional sampling.

August 1996 – The soil sampling techniques are reported to LDEQ in the facility's addendum to the RFI work plan. Additional soil sampling is proposed at this time.

July to August 1999 – The additional sampling is completed but only to limited depths as a subsurface obstruction is encountered.

- RFI report is submitted for Area 2. Ethyl recommends No Further Action at this time.

### AREA 3: FORMER SANDBEDS

The following primary CoC's were found in soil and/or groundwater:

- Perchloroethylene
- Lead

#### **SWMUs 52, 53, and 54**

These units, respectively, have the following names:

- Sandbed Filter (T-6)
- Sandbed Filter (T-7)
- Sandbed Filter (T-8)

These three units were used for RCRA-regulated sludge-dewatering. Lead-containing sludge was dredged to the sandbed filters from the wastewater treatment impoundments. Filtered water was then pumped to the water treatment units. Dewatered sludge was removed and either recycled or placed in permitted landfills.

The sandbeds closed in 1990 and are currently monitored by the Post-Closure monitoring plan.

A brief Corrective Action Summary for Area 3 is as follows:

March 1996 – Soil samples are obtained. They show concentrations of Perchloroethylene, and a conclusion has not yet been reached.

April 1996 – Data and results from this slightly later investigation give chloro-ethylene concentrations below detection, although this is not a final conclusion.

### AREA 4: LINDANE AREA

The following primary CoC's were found in soil and/or groundwater:

- Lindane

#### **SWMU 64- BHC(Lindane) Disposal Area**

Benzene hexachloride (BHC) was produced beginning with a pilot plant in 1948, and in 1949 a commercial plant (BHC No.1) was established. A second BHC plant was completed in 1952. The pesticide Lindane, which is about 99% gamma isomer ( $\gamma$ -BHC), was produced by further processing BHC in the mid-1950's; however, this product was not profitable and was subsequently disposed of onsite.

A brief corrective action timeline for Area 4 is as follows:

April 1991 – 22 soil borings are installed. At least one sample per boring is analyzed for Lindane. The findings show Lindane in widely varied concentrations.

January 1995 – Soil samples are collected from 5 borings. Lindane is detected in the soil samples tested.

1993-1998 – Compliance groundwater monitoring yields varying results for Lindane from wells screened throughout various zones.

June 1999 – Area 4 RFI report is submitted to LDEQ.

#### **AREA 5: RED MUD AREA**

The following CoC's were found in surface water:

- Arsenic

#### **SWMU 65 – Bauxite Mud Lake (Red Mud Area)**

This SWMU consisted of one portion of a red mud lake. The lake had been used by Alcoa to dispose of red mud from aluminum ore extraction. The lake's ownership changed hands several times, going to LA DOTD, Kaiser Aluminum, and eventually Ethyl Corporation. The western portion of the lake is still owned by Kaiser Aluminum, and it contains a closed/capped red mud impoundment. The progression described here occurred over a period from 1940 until the late 1960's.

#### **AOC D – Pipeline Excavation Area**

This AOC can be described as an excavation area for where pipeline was once intended to be placed.

A brief corrective action timeline for Area 5 is as follows:

November 1999 – Area 5 RFI report is submitted to LDEQ. No soil sampling has been done or required by the workplan. No groundwater sampling/analysis has been completed either, due to the low permeability of the soil. Data pertaining to the sediment of this area is collected at this time, but no concentrations of arsenic are detected. The overall conclusion of the report is that arsenic is being discharged, but the source has not yet been located. The November 1999 Area 5 RFI Submittal recommends a Corrective Measures Study.

October 2000 – LDEQ had requested additional surface water sampling. This was completed, and the results were submitted in a report on October 13, 2000.

## **AREA 6: ALKYL LEAD PRODUCTION AREA**

The following CoC's have been detected in soil and/or groundwater:

- Lead
- Vinyl Chloride

### **SWMU 34 – Alkyl Lead Area Wastewater Ditch and Sumps**

This SWMU was a group of below-grade reinforced concrete sumps and ditches used to convey wastewater from the Alkyl lead process units to the trace lead settling basin. They were active from the 1940's until tetraethyl lead production ceased, and the units were closed in 1987.

### **SWMU 35 – Tank Car Wash House**

This was a 5,000 square ft. concrete pad used to clean Alkyl Lead railcars. Runoff was drained into a treatment system. The unit was made inactive in 1985, but the concrete pad has not yet been dismantled.

### **SWMU 42 – PVC Area Process Sewer and Sumps**

This SWMU consists of a series of interconnected sewer lines and sumps. The equipment has been inactive since the shutdown of the PVC plant in 1983. No releases from this SWMU have been documented.

### **SWMU 66 – FEE Area Sewer and Ditch**

This carried wastewater from the chlorinated hydrocarbon process area to an unlined ditch which ran parallel to the railroad tracks on the southwest corner of the site. It is suspected that any contamination in this area would actually come from the Alkyl Lead area and not the Former Hydrocarbon Production Area. The sewer ditch originated during the startup of the Alkyl Lead processing in 1937 but the closure date of the ditch is unknown. The drainage ditch was used for surface drainage, and was suspected to be the source of a plume that impacted Ethyl, Exxon, and Formosa.

A brief corrective action timeline is as follows for Area 6:

July 1999 – Soil sampling shows that lead concentrations in borings exceed the permit limit of 500 mg/Kg. Results for vinyl chloride are below detection, however.

September 1999 – Additional borings find lead concentrations in exceedance of RECAP screening standards for industrial soils.

October 1999 – 'Day 270' soil boring activities are executed in order to adequately delineate the plume.

December 1999 – RFI report for Area 6 is submitted to LDEQ. A sitewide RECAP evaluation for lead is recommended, to determine if a CMS is warranted.

#### **AREA 7: MISCELLANEOUS AREAS**

The following CoC's have been detected in soil and/or groundwater:

- Dichloroethane
- Lead
- Barium

#### **SWMU 5 – R & D Wastewater Sump**

Used to manage waste water from the R&D pilot plant, this sump was certified as a tank in accordance with 40 CFR 263.191. Although this unit was a part of Albemarle's R&D process, no releases were ever documented. SWMU 5's listing on the 1996 RFI work plan had been due to the need to determine the integrity of the sump walls and base. This determination would allow work at that site to proceed accordingly.

#### **SWMU 47 – Fluid Car Wash**

This had consisted of an unpaved pad that sloped down to Lake Mannheim. The pad had been used for cleaning tank cars and tank trucks that transported chlorinated hydrocarbons. Releases from this unit occurred by virtue of the fact that wastewaters were allowed to drain onto the unprotected soil.

#### **SWMU 57/71 – Beryllium Burial Site (Duplicate of SWMU 71 – D-5 Landfill)**

Approximately 20 55-gallon drums of beryllium dust were buried in the northwest portion of the site. This occurred over a 3-year period (1971-1974). Soil sampling results show beryllium and barium concentrations below screening standards for Soil (protective of groundwater). No releases have been documented for this SWMU.

#### **SWMU 58 – Tank Car Burn Area**

Tank cars were cut up for scrap following the shutdown of lead production in the Northwest corner of the plant. This occurred between 1985 and 1986. The 1999 RFI boring study showed all sampling locations to be at lead concentrations in exceedance of 500 mg/Kg.

#### **SWMU 61 – Demolition Debris Landfill**

This non-regulated landfill was located adjacent to Monte Sano Bayou. The unit had been used for demolition debris accumulated during the razing of the plant in the 1980s. No soil boring has been done to investigate SWMU 61 due to the presence of subsurface debris.



### **SWMU 69 – QC Lab Sump and Sewer**

The QC Lab was located about 500 feet due west of the office buildings. Its concrete sewer led from the sump to the T-1 (Shell Dam) outflow ditch. The QC Lab sump had been found to be leaking in the mid-1960's, at which time it was replaced with a new concrete sump. It is believed that the 1960's leak was the source of the chlorinated hydrocarbons detected in upgradient monitoring well M-3. SWMU 69 was sampled for VOCs only and all of the analytical results were found to be below screening standards for soil (protective of groundwater.)

### **SWMU 70 – D-4 Landfill**

Designated D-4 by the EPA, this area covers a 100 x 100 foot square and received crushed drums that had been covered with barium sulfate. This operation was closed in 1984, but soil boring studies have shown lead and barium concentrations above permit limits.

A brief corrective action summary for Area 7 is as follows:

- Subsurface soil sampling activities are initiated for Area 7.

September 1999 – Additional samples are taken to determine the extent of any contamination.

October 1999 – The final soil sampling event occurs.

December 1999 – Area 7 RFI submittal is provided to LDEQ. At this time, Ethyl proposes a RECAP evaluation in order to determine the need for a CMS.

### **AREA 8: Landfill D-3/Impoundment T-5**

The following CoCs have been found in soil and/or groundwater:

- Lead

### **SWMU 51 – T-5(North Pond, North Lagoon)**

As a regulated unit, this SWMU was the North Pond. It was a RCRA-regulated surface impoundment with a surface area of 140,000 square feet and an average depth of 10 feet. Unlined and excavated in a natural depression, the North Pond had been used as the final settling basin for the NPDES wastewater treatment system.

### **AOC G – D-3/T-5 Interface**

This is the concrete-lined interface between the closed D-3 Landfill and previous Surface Impoundment T-5.

A brief corrective action summary for Area 8 is as follows:

1989-1991 - Soils above the LDEQ-approved cleanup criterion for lead (500mg/Kg) are removed and placed in the D-2 Landfill. The final excavation caused seepage from shallow groundwater to enter the T-5 Impoundment. Seepage control facilities are installed.

December 1996 - A risk assessment is conducted to determine if existing concentrations of soil lead pose a significant threat to health and the environment.

May 1997 - Soil sampling activities are conducted in the parking lot east of the T-5 Impoundment in order to tell if the soils could be used as backfill for its partial closure.

1997 - LDEQ approves the December 1996 Risk Assessment, contingent upon revisions and the inclusion of the T-5 Impoundment in the Post-Closure Monitoring Period.

September 1997 - Ethyl submits a revised closure plan for the T-5 Impoundment. (The plan is modified in June of 1998).

December 1997 - Construction work from T-5 closure plan is completed.

TABLE 1. SUMMARY OF CORRECTIVE ACTION ACTIVITIES

<i>Area Name /AOC or SWMU Number</i>	<i>Area Description</i>	<i>Status of Activity</i>	<i>CA</i>	<i>Corrective Action</i>	<i>EDMS Document ID #/ Approval Date</i>
Area 1 - Former Hydrocarbon Production Area/SWMUs 8, 9, 23, 25, 67/AOC F, 68, 74 77, AOC B, AOC E	Units in this area managed heavy ends from EDC production. The wastes were then shipped offsite for incineration. Also, Former Hydrocarbon Production Area acid wastewater was managed via the Neutralization Basin and Ditch (SWMU 25).	Area 1 RFI initiated. Submittals to date include the RFI Work Plan (a Day 180 requirement for the Post-Closure Permit) and the Area 1 RFI Report (The RFI Work Plan was approved by LDEQ, RCRA POC/CA groundwater monitoring/recovery is ongoing.		TBD <sup>1</sup>	7739608 - 1/6/1999 Approval letter for RFI Work Plan  6365876 - 12/14/1999 Area 1 RFI Report  35748485 (page 487 of EDMS doc) - 2/24/1996 Day 180 submittal includes RFI Work Plan (Volume II of II)

Area 2 – Closed Facilities/SWMUs 24, 28, 44, 45, 46, 49, 50, 55, 56, 72	Low-lead wastewater solids and lead furnace residues were landfilled on-site.	Area 2 RFI initiated. Submittals to date include the RFI Work Plan (a Day 180 requirement for the Post-Closure Permit) and the Area 2 RFI Report (The RFI Work Plan was approved by LDEQ), RCRA POC/CA groundwater monitoring/recovery is ongoing.	TBD <sup>1</sup>	7739608 – 1/6/1999 Approval letter for RFI Work Plan  9/3/1999 – Area 2 RFI Report  35748485 (page 487 of EDMS doc) 2/24/1996 – Day 180 submittal includes RFI Work Plan (Volume II of II)
Area 3 – Former Sandbeds/SWMUs 52, 53, and 54	Managed low-lead sludges from the wastewater treatment impoundments.	Area 3 RFI initiated. Submittals to date include the RFI Work Plan (a Day 180 requirement for the Post-Closure Permit) and the Area 3 RFI Report. (The RFI Work Plan was approved by LDEQ), RCRA POC/CA groundwater monitoring is ongoing.	TBD <sup>1</sup>	7739608 – 1/6/1999 Approval letter for RFI Work Plan  9/17/1999 – Area 3 RFI Report.  35748485 (page 487 of EDMS doc) - 2/24/1996 Day 180 submittal includes RFI Work Plan (Volume II of II)
Area 4 – Lindane Area/SWMU 64	Area of the former Lindane (gamma Benzene Hexachloride) plants	Area 4 RFI initiated.	TBD <sup>1</sup>	7739608 – 1/6/1999 Approval letter for RFI

<p>Area 5 - Red Mud Area/ SWMU 65 and AOC D</p>	<p>By-products of Kaiser's aluminum production, coincident with arsenic contamination of uncertain origin.</p>	<p>Submittals to date include the RFI Work Plan (a Day 180 requirement for the Post-Closure Permit) and the Area 4 RFI Report. (The RFI Work Plan was approved by LDEQ), RCRA POC/CA groundwater/recovery monitoring is ongoing.</p>	<p>Work Plan 5991992 - 6/14/1999 - Area 4 RFI Report. 35748485 (page 487 of EDMS doc) - 2/24/1996 Day 180 submittal includes RFI Work Plan (Volume II of II)</p>
<p>TBD<sup>1</sup></p>	<p>Submittals to date include the RFI Work Plan (a Day 180 requirement for the Post-Closure Permit) and the Area 5 RFI Report. (The RFI Work Plan was approved by LDEQ), RCRA POC/CA groundwater monitoring/recovery is ongoing.</p>	<p>7739608 - 1/6/1999 Approval letter for RFI Work Plan 5986350 - 11/05/1999 - Area 5 RFI Report. 35748485 (page 487 of EDMS doc) - 2/24/1996 Day 180 submittal includes RFI Work Plan (Volume II of II)</p>	<p>76</p>

Area 6 – Alkyl Lead Production Area/SWMUs 34, 35, 42, 66	Dealt with High-lead wastewater solids, furnace scrubber solids, Leaded tank bottoms, Low-lead wastewater solids, Lead furnace residue.	Area 6 RFI initiated. Submittals to date include the RFI Work Plan (a Day 180 requirement for the Post-Closure Permit) and the Area 6 RFI Report. (The RFI Work Plan was approved by LDEQ), RCRA POC/CA groundwater monitoring/recovery is ongoing.	TBD <sup>1</sup>	7739608 – 1/6/1999 Approval letter for RFI Work Plan  6024290- 12/22/1999 – Area 6 RFI Report.  35748485 (page 487 of EDMS doc) - 2/24/1996 Day 180 submittal includes RFI Work Plan (Volume II of II)
Area 7 – Miscellaneous Areas/SWMUs 5, 47, 57/71, 58, 61, 69, 70	SWMUs from various units yielded contamination from Lead, Barium, and Dichloroethane.	Area 7 RFI initiated. Submittals to date include the RFI Work Plan (a Day 180 requirement for the Post-Closure Permit) and the Area 7 RFI Report. (The RFI Work Plan was approved by LDEQ), RCRA POC/CA groundwater monitoring/recovery is ongoing.	TBD <sup>1</sup>	7739608 – 1/6/1999 Approval letter for RFI Work Plan  6024754- 12/22/1999 – Area 7 RFI Report.  35748485 (page 487 of EDMS doc) - 2/24/1996 Day 180 submittal includes RFI Work Plan (Volume II of II)
Area 8 – Landfill D-3 and Impoundment T-	Albemarle R&D Wastewater, along with contamination from Settling basin (T-5	Area 8 RFI initiated.	TBD <sup>1</sup>	35748485 (page 487 of

S/SWMU 51, AOC G	Impoundment.)		
		Submittals to date include the RFI Work Plan (a Day 180 requirement for the Post-Closure Permit). The RFI Work Plan was approved by LDEQ, RCRA POC/CA groundwater monitoring is ongoing.	EDMS doc) - 2/24/1996 Day 180 submittal includes RFI Work Plan (Volume II of II)  5983068 – 9/29/1997 T-5 Closure Plan  5982948 – 1/7/1998 Closure Certification report for T-5 Impoundment  5983958 – 6/12/1998 Modification to Closure Plan

1 - "To be determined" – The need for corrective action will be determined subsequent to the completion of the CAS Investigation Workplan and the Administrative Authority's approval of the RECAP Report

# **ATTACHMENT 1**



# ATTACHMENT 1

## LIST OF FACILITY DOCUMENTS INCORPORATED IN THE PERMIT BY REFERENCE

LAD079460895-PC-RN-1  
AI#3085

DOCUMENT TYPE	ELECTRONIC DATABASE MANAGEMENT SYSTEM (EDMS) DOCUMENT ID	APPLICATION/ DOCUMENT DATE	COMMENTS
Waste Analysis Plan	35748485	02/26/07	Post-Closure Permit Renewal Application, Appendix D Pages 238-264 of the EDMS document
Personnel Training Plan	35748485	02/26/07	Post-Closure Permit Renewal Application, Appendix I, Pages 385-394 of the EDMS document
Contingency Plan	35748485	02/26/07	Post-Closure Permit Renewal Application, Appendix H, Pages 368-385 of the EDMS document
Groundwater Monitoring Program document	35748485	02/26/07	Post-Closure Permit Renewal Application, Appendix E, Pages 265-354 of the EDMS document
Post Closure Plan	35748485	02/26/07	Post-Closure Permit Renewal Application, Appendix A, Pages 181-226 of the EDMS document
Post Closure Cost Estimate	35748485	02/26/07	Post-Closure Permit Renewal Application, Appendix B, Pages 227-229 of the EDMS document
Inspection Plan	35748485	02/26/07	Post-Closure Permit Renewal Application, Appendix J, Pages 394-401 of the EDMS document
Security Plan	35748485	02/26/07	Post-Closure Permit Renewal Application, Appendix L, Pages 405-445 of the EDMS document
Arrangements with Local Authorities	n/a	n/a	To be submitted in accordance with Condition II.E.25.i. of this Permit
Corrective Action Plan	35748485	02/26/07	Post-Closure Permit Renewal Application, Appendix F, Pages 355-357 of the EDMS document
Operating Records Plan	35748485	02/26/07	Post-Closure Permit Renewal Application, Appendix K, Pages 401-405 of the EDMS document

# **RESPONSIVENESS SUMMARY**

**RESPONSIVENESS SUMMARY**  
**ETHYL CORPORATION**  
**LAD 079 460 895**  
**AGENCY INTEREST # 3085**  
**BATON ROUGE, LOUISIANA**

**Item:** 1

**Reference:** Quoted from August 11, 2008 comments from Ethyl Corporation (Ethyl)

**Issue:** Body of the Permit, Condition V.A., Post Closure Care Period

**Comment:** Condition V.A. in the Post Closure Care Period Conditions reads as follows:

The post-closure care period will be in effect for the period of thirty (30) years, unless extended or shortened by the Administrative Authority, as specified in LAC 33:V.3521.A.1 and 2, Length of Post-Closure.

V.A.1 Area D-1 Landfill: Certified closed on 11/1/1991, verified 4/15/1993

V.A.2. Area D-2 Landfill: Certified closed on 11/1/1991, verified 4/15/1993

V.A.3. Surface Impoundment T-2: Certified closed on 11/1/1991, verified 4/15/1993

V.A.4. Surface Impoundment T-3: Certified closed on 11/1/1991, verified 4/15/1993

V.A.5. Surface Impoundment T-4: Certified closed on 11/1/1991, verified 4/15/1993

V.A.6. Area D-3 Landfill: Certified closed on 11/1/1991, verified 4/15/1993

V.A.7. Surface Impoundment T-1: Certified closed on 2/1/1989, verified via inclusion on the Post-Closure Permit issued on 8/28/1995

V.A.8. Surface Impoundment T-5: Certified closed on 1/7/1998, verified on 3/1/1999

V.A.9. Surface Impoundment T-6: Certified closed on 4/1/1990, verified on 5/6/2008

V.A.10. Surface Impoundment T-7: Certified closed on 4/1/1990, verified on 5/6/2008

V.A.11. Surface Impoundment T-8: Certified closed on 4/1/1990, verified on 5/6/2008

V.A.12. Container Storage Area S-1: Certified closed on 5/25/1989, verified on 9/7/1989

V.A.13. Container Storage Area S-2: Certified closed on 3/26/1986, verified 4/18/2008

**RESPONSIVENESS SUMMARY**  
**ETHYL CORPORATION**  
**LAD 079 460 895**  
**AGENCY INTEREST # 3085**  
**BATON ROUGE, LOUISIANA**

Ethyl has researched these dates and believes that the actual dates when the permitted units' post closure care began were as follows:

Unit	Closure Certification Date	Activity	Post Closure Care begins
S-1	4/86	Removed	N/A
S-2	4/86	Removed	N/A
D-1	4/86	In-place Closure	4/86
D-2	11/91	In-place Closure	8/92
D-3	4/86	In-place Closure	4/86
T-1	5/90	Removed	N/A
T-2	11/91	In-place Closure	8/92
T-3	11/91	In-place Closure	8/92
T-4	11/91	In-place Closure	8/92
T-5	1/98	Removed	N/A
T-6, T-7, & T-8	8/92	Removed	N/A

Also as part of Item 1, Ethyl has reiterated its contention that Impoundments T-1, T-6, T-7, and T-8 were removed and no post closure care should be required for these impoundments.

**LDEQ**  
**Response:**

The Department acknowledges this comment, and provides the following response for clarification. The first part of Item 1 deals with the beginning dates of the permitted units' Post Closure Care. The dates given in Condition V.A. of the Permit are actually those upon which each unit's closure was verified through documentation put forth by the Administrative Authority. This stipulation can be seen by referring to LAC 33:V.3517.A., which states:

*Documentation supporting the independent registered engineer's certification must be furnished to the Administrative Authority upon request until he releases the owner or operator from the financial assurance requirements for closure under LAC 33:V. 3707*

In other words, the Administrative Authority is responsible for releasing an owner/operator from closure requirements, i.e. formally verifying a closure. For this reason, only the dates of Louisiana Department of Environmental Quality (LDEQ) documents that were used to formally verify the units' closures can be used to mark the unit closures' verifications.

It should also be noted that the language used in Condition V.A. only lists the dates each unit closure was formally verified. For the intents and purposes of this Standard Hazardous Waste Post Closure Permit, Post Closure care will be conducted in accordance with the terms and conditions therein. This includes a Permit effective period. Details of any subsequent renewal (i.e., further Post Closure care) will be addressed as the conclusion of the effective period approaches.

The second part of Item 1 deals with the specific details of the unit closures for Impoundments

**RESPONSIVENESS SUMMARY**  
**ETHYL CORPORATION**  
**LAD 079 460 895**  
**AGENCY INTEREST # 3085**  
**BATON ROUGE, LOUISIANA**

T-1, T-6, T-7, and T-8. The Department acknowledges the Ethyl's contention that these units have been removed and should require no post closure care. However, none of the documentation of these units' closures submitted to this point demonstrates that clean closures have occurred. In order to exempt Impoundments T-1, T-6, T-7, and T-8 from Post Closure Care, Ethyl must address the standards for clean closure found in LAC 33:VII.713.E.3.b.

**Action:** N/A

**Item:** 2

**Reference:** Quoted from August 11, 2008 comments from Ethyl Corporation (Ethyl)

**Issue:** Body of the Permit, Condition III.A.2.

**Comment:** Page 17, Section III.A.2. Ethyl request to change "manage" to "dispose of" in case of emergency or the waste becomes a viable product.

**LDEQ Response:** The Department acknowledges your comment.

**Action:** The permit will be revised.

**Item:** 3

**Reference:** Quoted from August 11, 2008 comments from Ethyl Corporation (Ethyl)

**Issue:** Fact Sheet, correction on Section IV

**Comment:** Ethyl notes that this section of the Fact Sheet should read that the property is comprised of 193 acres and not "139" as was erroneously printed.

**LDEQ Response:** The Department acknowledges and concurs with your comment.

**Action:** The correction will remain noted in this Responsiveness Summary.

**RESPONSIVENESS SUMMARY  
ETHYL CORPORATION  
LAD 079 460 895  
AGENCY INTEREST # 3085  
BATON ROUGE, LOUISIANA**

**Item:** 4

**Reference:** Quoted from August 11, 2008 comments from Ethyl Corporation (Ethyl)

**Issue:** Body of the Permit, Pages 5 and 11

**Comment:** Units T-6, T-7, and T-8 are not a part of Landfill D-2. These units were clean closed. However, Ethyl had previously agreed to monitor for 30 years...

**LDEQ Response:** The Department acknowledges and concurs with your comment. The closed surface impoundments (T-6, T-7, and T-8) themselves were never a part of or adjacent to Landfill D-2. However, various submittals detailing the closures of T-6, T-7, and T-8 explain that wastes removed from those impoundments were disposed in Landfill D-2.

**Action:** Page 5 of the permit will be revised to read "waste from" instead of merely "includes."  
No revisions made to Page 11.

**Item:** 5

**Reference:** Quoted from August 11, 2008 comments from Ethyl Corporation (Ethyl)

**Issue:** Post Closure, General

**Comment:** Post Closure Permit for all units began at the initial issuance of the post closure permit on August 8, 1995 and will continue for a period of 30 years.

**LDEQ Response:** The Department acknowledges your comment but does not concur. The original Post Closure Permit for all units actually began on August 28, 1995. However, it was effective for a maximum period of ten years from the August 28, 1995 effective date. This information can be found on Page 2 of Permit Number LAD079460895-PC-1, EDMS document ID number 5347177

**Action:** N/A